

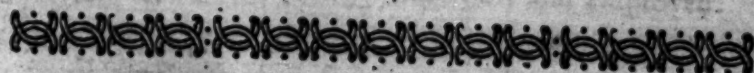
A D V I C E

T O

PEOPLE IN GENERAL,

WITH

Respect to their HEALTH.



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A D V I C E

T O

PEOPLE IN GENERAL,

WITH

Respect to their HEALTH.

Translated from the FRENCH Edition of

Dr. TISSOT's *Avis au Peuple, &c.*

To which are added, by the Author,

TWO new CHAPTERS; one upon Inoculation, the other upon lingering Distempers: With the Author's Notes, and others adapted to this ENGLISH Translation.

A L S O,

A TABLE of the most cheap, yet effectual Remedies, and the plainest Directions for preparing them readily.

I N T W O V O L U M E S.

The SIXTH EDITION, Corrected and Improved.

*In the Multitude of the People is the Honour of a King; and
for the Want of People cometh the Destruction of the Prince.*

PROV. xiv. 28.

V O L. I.

D U B L I N :

Printed by JAMES POTTS, in DAME-STREET.

MDCC LXXIV.

A D V I C E

TO

PEOPLE IN GENERAL

WITH

Respect to their HEALTH

Translated from the French Edition of

Dr. TISSOT'S *Art de se Preserver*, &c.

To which are added, by the Author,

Two new Chapters, one upon Inoculation, the other upon preventing Diseases, which are Ammon's Notes, and others adapted to the American Situation.

AND

A Table of the most common, yet often neglected Diseases, and the proper Directions for preventing their progress.

IN TWO VOLUMES.

The first Edition, corrected and improved.

By the Author of the *Précis de Médecine*, &c. and the *Précis de Chirurgie*, &c. of the same Author. Paris, 1788.

VOL. I.

PHILADELPHIA

Printed by JAMES POTTS, in Dame-street. MDCCLXXXIV.

ADVERTISEMENT.

THE following Work was intended by the celebrated Author (as he himself says in the Preface) for the use of the peasants and country-people; who, by their distance from regular physicians, are the most unlikely to be seasonably provided with good advice and assistance, in acute diseases, or upon any sudden inward, or outward accident: And how far it has already answered his intention, will be very apparent from the many editions, which in the space of four years have been published, of this truly useful work. It has been translated into almost all the European languages; and the present is the sixth English edition; which is enlarged with two new chapters, from the last edition of the original, one upon inoculation, the other upon consumptions, neither of which are included in the London translation.

As the Author, in his Preface and Introduction, has fully explained his motives for this publication, the Translator thinks it needless to detain the reader with any new preface of his own; and will only say further, that he has been much obliged to a Physician (who desires his name should not be mentioned) for some very useful explanatory notes now added to the present edition.

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The AUTHOR'S

DEDICATION.

T O T H E

**MOST ILLUSTRIOUS, THE MOST NOBLE
AND MAGNIFICENT LORDS,**

**The PRESIDENT and COUNSELLORS of the Cham-
ber of Health, of the City and Republic of
Berne (in Switzerland.)**

Most Honourable Lords,

WHEN I first published the following work, my utmost partiality to it was not sufficient to allow me the confidence of inscribing it to your Lordships. But your continual attention to all the objects, which have any relation to that important part of the administration of the State, which has been so wisely committed to your care, has induced you to take notice of it. You have been pleased to think it might prove useful, and that an attempt must be laudable, which tends to the extermination of erroneous and inveterate prejudices, those cruel tyrants, that are continually opposing the happiness of the people; even under that form and constitution of government, which is the best adapted to establish and to increase it.

Your Lordships approbation, and the splendid marks of benevolence *, with which you have honoured me, have afforded me a juster discernment of the importance of this treatise, and have inclined me to hope, **MOST ILLUSTRIOUS, MOST NOBLE, AND MAGNIFICENT LORDS**, that you will permit this new edition to appear under the sanction of your auspices; that while the Publick is assured of your general goodness and beneficence, it may also be informed of my profoundly grateful sense of them, on the same occasion.

May the present endeavour then, in fully corresponding to my wishes, effectually realize your Lordships utmost expectations from it; while you condescend to accept this small oblation, as a very unequal expression of that profound respect, with which I have the honour to be,

MOST ILLUSTRIOUS, MOST NOBLE, AND MAGNIFICENT LORDS,

Your most humble,

And most Obedient Servant,

LAUSANNE, Dec. 3, 1762. TISSOT.

* See the following Preface.

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N. B. The notes marked *E. L.* are by the editor of Lyons.—The notes marked *B.* are by a Scotch Physician.—And those without any mark, by other medical gentlemen, who have contributed their assistance to enrich this edition.

THE

THE AUTHOR'S
PREFACE.

IF Vanity too often disposes many to speak of themselves, there are some occasions, on which a total silence might be supposed to result from a still higher degree of it; And the very general reception of the *Advice to the People* has been such, that there would be room to suspect me of that most shocking kind of pride, which receives applause with indifference (as deeming its own merit superior to the greatest,) if I did not appear to be strongly impressed with a just sense of that favourable opinion of the Public, which has been so very obliging, and is so highly agreeable to me.

Deeply affected with the unhappy situation of the poor sick in country places in Switzerland, where they are lost from a scarcity of the best assistance, and from a fatal superfluity of the worst, my sole purpose in writing this treatise has been for their service and comfort. I had intended it only for a small extent of country, with a moderate number of inhabitants; and was greatly surprised to find, that, within five or six months after its publication, it was become one of the most extensively published books in *Europe*; and one of those treatises, on a scientific subject, which has been perused by the greatest number of readers of all ranks and conditions. To consider such

success with indifference, were to have been unworthy of it, which demerit, at least on this account, I cannot justly be charged with ; since indifference has not been my case, who have felt, as I ought, this gratification of self-love ; and which, under just and prudent restrictions, may perhaps be even politically cherished ; as the delight naturally arising from having been approved, is a source of that laudable emulation, which has sometimes produced the most essential good consequences to society itself. For my own part, I can truly aver, that my satisfaction has been extraordinarily heightened on this occasion, as a lover of my species : Since judging from the success of this work (a success which has exceeded my utmost expectations) of the effects that may reasonably be expected from it, I am happily conscious of that satisfaction, or even joy, which every truly honest man must receive, from rendering essential good offices to his fellow-creatures. Besides which, I have enjoyed, in its utmost extent, that satisfaction which every grateful man must receive, from the approbation and beneficence of his Sovereign, when I was distinguished with the precious medal, which the illustrious Chamber of Health of the republic of *Berne* honoured me with, a few months after the publication of this treatise ; together with a letter still more estimable, as it assured me of the extraordinary satisfaction the Republic had testified on the publication of it ; a circumstance which I could not avoid publicly to acknowledge, without the greatest vanity and ingratitude. This has also been a very influencing motive with me, to exert my utmost abilities in improving this new edition (in which I have made many alterations, that render it greatly preferable to the first) ; and of which amendments I shall give a brief account, after taking some notice of the editions which have appeared elsewhere.

The first is that which Messrs. *Heidegger* the booksellers published in the *German* language, at *Zurich*, about a year since. I should have been highly delighted with the mere approbation of Dr. *Hirzel*, first physician of the Canton of *Zurich*, &c. whose superior and universal talents ; whose profound knowledge in the theory of physic ; and the extent and success of whose practice, have justly elevated him among the small number of extraordinary men of our own times ; he having lately obtained the esteem and the thanks of all *Europe*, for the history of one
of

of her sages *. But I little expected the honour this gentleman has done me, in translating the *Advice to the People* into his own language. Highly sensible, nevertheless, as I am of this honour, I must always reflect with regret, that he has consumed that important time, in rendering my directions intelligible to his countrymen, which he might have employed much more usefully, in obliging the world with his own.

He has enriched his translation with an excellent Preface, which is chiefly employed in a just and beautiful portrait and contrast of the true, and of the false physician; with which I should have done myself the pleasure to have adorned the present edition †, if the size of it, already too large, had not proved an obstacle to so considerable an addition; and if the manner, in which Dr. *Hirzel* speaks of its author, had permitted me with decency to publish his preface. I have been informed by some letters, that there have been two other *German* translations of it; but I am not informed by whom. However, Dr. *Hirzel's* preface, his own notes, and some additions with which I have furnished him, renders his edition preferable to the first in *French*, and to the other *German* translations already made.

The second edition is that, which the younger *Didot*, the bookseller, published towards the end of the winter at *Paris*. He had requested me to furnish him with some additions to it, which I could not readily comply with.

The third edition is a Dutch translation of it, which will be very speedily published by M. *Renier Aremborg*, bookseller at *Rotterdam*. He had begun the translation from my first edition; but having wrote to know whether I had not some additions to make, I desired him to wait for the publication of this. I have the good fortune to be very happy in my translators; it being Dr. *Bikker*, a celebrated physician at *Rotterdam*, (so very advantageously known in other countries, by his beautiful *Dissertation on Human Nature*, throughout which genius and knowledge

* *Le Socrate Rustique*, a work, which every person should read.

† This preface is indeed premised to this *French* edition, but a translation of it was omitted, to avoid extending the bulk and price of the work. Dr. *Tissot* must then have been ignorant of this addition, when first published at *Lyons*.

proceed hand in hand,) who will present his countrymen with the *Advice to the People* in their own language ; and who will improve it with such notes, as are necessary for a safe and proper application of its contents, in a climate different from that in which it was wrote. I have also heard, there has been an *Italian* translation of it.

After this account of the foreign editions, I return to the present one, which is the second of the original French treatise. I shall not affirm it is greatly corrected, with respect to fundamental points : For as I had advanced nothing in the first, that was not established on truth and demonstration, there was no room for correction, with regard to any essential matters. Nevertheless, in this I have made, 1. A great number of small alterations in the diction, and added several words to render the work still more simple and perspicuous. 2. The typographical execution of this is considerably improved in the type, the paper, and ink, the spelling, pointing, and arrangement of the work. 3. I have made some considerable additions, which are of three kinds. Not a few of them are new articles on some of the subjects formerly treated of ; such as the articles concerning tarts, and other pastry ware ; the addition concerning the regimen for persons, in a state of recovery from diseases ; the preparation for the small-pox ; a long note on the Jesuits bark ; another on acid spirits ; one on the extract of hemlock : Besides some new matter which I have inserted ; such as an article with regard to proper drinks ; one on the convulsions of infants ; one on chilblains ; another on punctures from thorns ; one upon the reason of the confidence reposed in Quacks, and the thirty-first chapter entirely ; in which I have extended the consideration of some former articles, that seemed to me a little too succinct and short. There are some alterations of this last, this additional kind, interspersed almost throughout the whole substance of this edition ; but especially in the two chapters relating to women and children.

The objects of Chapter XXXI. are such as require immediate assistance ; viz. swoonings, hæmorrhages, that is, large spontaneous bleedings ; the attacks of convulsions, and of suffocations ; the consequences of fright and terror ; disorders occasioned by unwholesome or deadly vapours :

vapours : the effects of poison, and the sudden invasions of excessive pain.

The omission of this chapter was a very material defect in the original plan of this work. The editor of it at *Paris* was very sensible of this chasm, or blank, as it may be called, and has filled it up very properly: And if I have not made use of his supplement, instead of enlarging myself upon the articles of which he has treated, it has only been from a purpose of rendering the whole work more uniform; and to avoid that odd diversity, which seems scarcely to be avoided in a treatise composed by two persons. Besides which, that gentleman has said nothing of the articles, which employ the greatest part of that chapter, *viz.* the swoonings, the consequences of great fear, and the noxious vapours.

Before I conclude, I ought to justify myself, as well as possible, to a great number of very respectable persons both here and abroad, (to whom I can refuse nothing without great chagrin and reluctance) for my not having made such additions as they desired of me. This however was impossible, as the objects, in which they concurred, were some chronical distempers, that are entirely out of the plan, to which I was strictly attached, for many reasons. The first is, that it was my original purpose to oppose the errors incurred in country places, in the treatment of acute diseases; and to display the best method of conducting such, as do not admit of waiting for the arrival of distant succour; or of removing the patients to cities, or large towns. It is but too true indeed, that chronical diseases are also liable to improper treatment in small country places: But then there are both time and convenience to convey the patients within the reach of better advice; or for procuring them the attendance of the best advisers at their own places of residence. Besides which, such distempers are considerably less common than those to which I had restrained my views: And they will become still less frequent, whenever acute diseases, of which they are frequently the consequences, shall be more rationally and safely conducted.

The second reason, which, if alone, would have been a sufficient one, is, that it is impossible to subject the treatment of chronical distempers to the capacity and conduct of persons, who are not physicians. Each acute distemper generally arises from one cause; and the treatment of

it is simple and uniform ; since those symptoms, which manifest the malady, point out its cause and treatment. But the case is very differently circumstanced in tedious and languid diseases ; each of which may depend on so many and various causes (and it is only the real, the true cause which ought to determine us in selecting its proper remedies) that though the distemper and its appellation are evidently known, a mere by-stander may be very remote from penetrating into its true cause ; and consequently be incapable of chusing the best medicines for it. It is this precise and distinguishing discernment of the real particular cause [*or of the contingent concurrence of more than one*] that necessarily requires the presence of persons conversant in the study and the practice of all the parts of physic ; and which knowledge it is impossible for people, who are strangers to such studies, to arrive at. Moreover, their frequent complexness ; the variety of their symptoms ; the different stages of these tedious diseases (not exactly attended to even by many competent physicians) ; the difficulty of ascertaining the different doses of medicines, whose activity may make the smallest error highly dangerous, *etc.* are really such trying circumstances, as render the fittest treatment of these diseases sufficiently difficult and embarrassing to the most experienced physicians, and unattainable by those who are not physicians.

A third reason is, that even supposing all these circumstances might be made so plain and easy, as to be comprehended by every reader, they would require a work of an excessive length ; and thence be disproportioned to the faculties of those for whom it was intended. One single chronical disease might require as large a volume as the present one.

But finally, were I to acknowledge, that this compliance was both necessary and practicable, I declare I find it exceeds my abilities ; and that I am also far from having sufficient leisure for the execution of it. It is my wish that others would attempt it, and may succeed in accomplishing it ; but I hope these truly worthy persons, who have honoured me by proposing the atchievement of it to myself, will perceive the reasons for my not complying with it, in all their force ; and not ascribe a refusal, which arises from the very nature of the thing, either to obstinacy, or to any want of an inclination to oblige them.

I have

I have been informed my citations, or rather references, have puzzled some readers. It was difficult to foresee this, but is easy to prevent it for the future. The work contains citations only of two sorts: one, that points to the remedies prescribed; and the other, which refers to some passage in the book itself, that serves to illustrate those passages in which I cite. Neither of these references could have been omitted. The first is marked thus, No. with the proper figure to it, as 1, 2, &c. This signifies, that the medicine I direct is described in the table of remedies, according to the number annexed to that character. Thus, when we find directed, in any page of the book, the warm infusion No. 1; in some other, the ptilian No. 2; or in a third, the almond-milk, or emulsion No. 4, it signifies, that such prescriptions will be found at the numbers 1, 2, and 4; and this table is printed at the end of the book.

If, instead of forming this table, and thus referring to the prescriptions by their numbers, I had repeated each prescription as often as I directed it, this treatise must have been doubled in bulk, and insufferably tiresome to peruse. I must repeat here, what I have already said in the former edition, that the prices of the medicines, or of a great number of them, are those at which the apothecaries may afford them, without any loss, to a peasant in humble circumstances. But it should be remembered, they are not set down at the full prices which they may honestly demand; since that would be unjust for some to insist on them at. Besides, there is no kind of tax in *Switzerland*, and I have no right to impose one.

The citations of the second kind are very plain and simple. The whole work is divided into numbered paragraphs distinguished by the mark §. And not to swell it with needless repetitions, when in one place I might have even pertinently repeated something already observed, instead of such repetition at length, I have only referred to the paragraph, where it had been observed. Thus, for example, when we read page 81, § 50, — *When the disease is so circumstanced as we have described*, § 46, — this imports that, not to repeat the description already given, I refer the reader to that last § for it.

The use of these citations is not the least innovation, and extremely commodious and easy: But were there only a single reason likely to be puzzled by them, I ought not to omit this explanation of them, as I can expect to be generally useful, only in proportion as I am clear: And it must be obvious, that a desire of being extensively useful is the sole motive of this work. I have long since had the happiness of knowing, that some charitable and intelligent persons have applied the directions it contains, with extraordinary success, even in violent diseases. And I shall arrive at the height of my wishes, if I continue to be informed, that it contributes to alleviate the sufferings, and to prolong the days of my rational fellow-creatures.

INTRO-

INTRODUCTION.

The first cause of depopulation, Emigrations.—Second cause, Luxury.—Third cause, Decay of Agriculture.—Fourth cause, the pernicious treatment of Diseases.—Means for rendering this Treatise useful. Explanation of certain physical terms and phrases.

THE diminution of the numbers of inhabitants, in most of the states of Europe, is a fact which is obvious to all the world, is the subject of a general complaint, and is well ascertained from the bills of mortality. This diminution is chiefly remarked in the country.

It may be ascribed to several causes, and I should think myself happy, could I contribute to remove one of the principal, which I take to be the unskilful treatment of the sick in country places. This is my sole design, but I must be permitted to mention the other concurrent causes. These may be reduced to two general classes: The country furnishes more emigrants than formerly; and population lessens in general every where.

There are several sorts of emigration. Some leave their country to enlist in the service of different nations by sea and land; or to be differently employed abroad, some as merchants or tradesmen, others as domestics, &c.

The military service, by land or sea, prevents population in various respects. In the first place, the numbers going abroad are always more; often *much* more than those who return. General battles, with all the hazards and fatigues of war, detached encounters, bad provisions, excess in drinking and eating, diseases that are the consequences of debauches, the disorders that are peculiar to the country; epidemical, pestilential, or contagious distempers, caused by the unwholesome air of Flanders, Holland, Italy and Hungary; long cruises, voyages to the East or West Indies, to Guinea, &c. destroy great numbers

bers of men *. The article of desertion also, the consequences of which they dread on returning home, disposes many to abandon their country for ever. Others, on quitting the service, take up with such establishments, as it has occasionally thrown in their way : and which necessarily prevent their return. But, in the second place, supposing they were all to come back, their country suffers equally from their absence ; as this very generally happens during that period of life, when they are best adapted for propagation ; since that qualification on their return is impaired by age, by infirmities and debauches : And even when they do marry, the children often perish as victims to the excesses and irregularities of their fathers : They are weak, languishing, distempered, and either die young, or live incapable of being useful to society. Besides, that the prevailing habit of libertinage, which many have contracted, prevents several of them from marrying at all. But notwithstanding all these inconvenient consequences are real and notorious ; yet as the number of those, who leave their country on these accounts, is limited, and indeed rather inconsiderable, if compared with the number of inhabitants which must remain at home : As it may be affirmed too, that this relinquishing of their country, may have been even necessary at some times, and may become so again, if the causes of depopulation should cease, this kind of emigration is doubtless the least grievous of any, and the last which may require a strict consideration.

This abandoning of their country, or *Expatriation*, as it may be termed, the object of which is a change of the emigrant's condition, is more to be considered, being more numerous. It is attended with many and peculiar inconveniences, and is unhappily become an epidemical evil, the ravages of which are still increasing ; and that from one simple ridiculous source, which is this ; that the success of one individual determines a hundred to run the same risque, ninety and nine of whom may probably be disappointed. They are struck with the apparent success of one, and are ignorant of the miscarriage of the others. Suppose an hundred persons might have set out ten years

* As a proof of this, it is reckoned that, during the last war, from the year 1755 to 1763, at least one hundred thousand men went from Scotland into the army and navy, and, from the best calculations, ten thousand of them have not returned.

ago, to *seek their fortune*, as the saying is, at the end of six months they are all forgotten, except by their relations : But if one should return the same year, with more money than his own fortune, more than he set out with ; or if one of them has got a moderate place with little work, the whole country rings with it, as a subject of general entertainment. A crowd of young people are seduced by this, and sally forth ; because not one reflects, that of the ninety nine, who set out with the hundredth person, one half has perished, many are miserable, and the remainder come back, without having gained any thing, but an incapacity to employ themselves usefully at home, and in their former occupations * ; and having deprived their country of a great many cultivators, who, from the produce of the lands, would have amassed considerable sums of money, and many comfortable advantages to it. In short, the very small number who succeed, are continually talked of ; the crowd that sink are perpetually forgot. This is a very great and real evil, and how shall it be prevented ? It would be sufficient perhaps to publish the extraordinary risque, which may be easily demonstrated : It would require nothing more than to keep an exact yearly register of all these adventurers, and at the expiration of six, eight, or ten years, to publish the list, with the fate of every emigrant. I am greatly deceived, or at the end of a certain number of years, we should not see such multitudes forsake their native soil, by which they might live comfortably by working, to go in search of establishments in others ; the uncertainty of which, such lists would demonstrate to them : and also prove, how preferable their condition in their own country would have been, to that they have been reduced to. People would no longer set out, but on almost certain advantages ; fewer should undoubtedly emigrate, more of whom, from that very circumstance, must succeed. Meeting with fewer of their countrymen abroad, these fortunate few would oftener return. By this means more inhabitants would remain in the country, more would return again, and bring with them more money to it. The state would be more populous, more rich and happy : as the happiness of a people, who live on a fruitful soil, depends essentially on

* This observation in particular holds true in Scotland, where people of all ranks are fond of going abroad, to the great loss of their native country.

4 INTRODUCTION.

the number of inhabitants, with a moderate quantity of pecuniary riches.

The population of the country is not only necessarily lessened, merely in consequence of the numbers that leave it; but even those who remain increase less, than an equal number formerly did. Or, which amounts to the same thing, among the same number of persons, there are fewer marriages than formerly; and the same number of marriages produce fewer christenings. I do not enter upon a detail of the proofs, since merely looking about us must furnish a sufficient conviction of the truth of them. What then are the causes of this? There are two capital ones, luxury and debauchery, which are enemies to population on many accounts.

Luxury causes the wealthy man, who would make a figure, and the man of a moderate income, but who is his equal in every other respect, and who *will* imitate him, to be afraid of a numerous family; the education of which must greatly contract that expence he had devoted to parade and ostentation: And besides, if he must divide his estate among a great many children, each of them would have but a little, and be unable to keep up the state and rank of the father's. Since merit is unjustly estimated by exterior shew and expence, one must of course endeavour to attain for himself, and to leave his children, in a situation capable of supporting that expence. Hence the fewer marriages of people who are not opulent, and the fewer children among people who marry.

Luxury is further prejudicial to the increase of the people, in another respect. The irregular manner of life which it introduces, depresses health; it ruins the constitutions, and thus insensibly affects procreation. The preceding generation counted some families with more than twenty children: The living one less than twenty cousins. Very unfortunately this way of thinking and acting, so preventive of increase, has extended itself even into villages: And they are no longer convinced there, that the number of children makes the riches of the countryman. Perhaps the next generation will scarcely be acquainted with the relation of brotherhood.

A third inconvenience of luxury is, that the rich retreat from the country to live in cities; and by multiplying their domestics there, they drain the former. This augmented train is prejudicial to the country, by depriving it of cultivators, and by diminishing population. These domestics,

tics, being seldom sufficiently employed, contract the habit of laziness; and they prove incapable of returning to that country-labour, for which nature intended them. Being deprived of this resource they scarcely ever marry, either from apprehending the charge of children, or from their becoming libertines; and sometimes, because many masters will not employ married servants. Or should any of them marry, it is often in the decline of life, whence the state must have the fewer people.

Idleness of itself weakens them, and disposes them to those debauches, which enfeeble them still more. They never have more than a few children, and these sickly; such as have not strength to cultivate the ground; or who, being brought up in cities, have an aversion to the country.

Even those among them who are more prudent, who preserve their morals, and make some savings, being accustomed to a city life, and dreading the labour of a country one (of the regulation of which they are also ignorant) chuse to become little shopkeepers, or tradesmen; and this must be a drawback from population, as any number of labourers beget more children than an equal number of citizens; and also by reason, that out of any given number, more children die in cities than in the country.

The same evils also prevail, with regard to female servants. After ten or twelve years servitude, the maid-servants in cities cannot acquit themselves as good country servants; and such of them as chuse this condition, quickly fall under that kind or quantity of work, for which they are no longer constituted. Should we see a woman married in the country, a year after leaving the town, it is easy to observe, how much that way of living in the country has broke her. Frequently their first child-bed, in which term they have not all the attendance their delicacy demands, proves the loss of their health; they remain in a state of languor, of feebleness, and of decay: They have no more children; and this renders their husbands useless towards the population of the state.

Abortions, infants carried out of their country after a concealed pregnancy, and the impossibility of their mothers getting husbands afterwards, are frequently the effects of their libertinage.

It is to be apprehended too these bad effects are rather increasing with us: since, either for want of sufficient numbers, or from æconomical views, it has become a custom,

custom, instead of women-servants, to employ children, whose manners and whose constitutions are not yet formed; and who are ruined in the same manner, by their residence in town, by their laziness, by bad examples, and bad company.

Doubtless much remains still unsaid on these important heads; but besides my intention not to swell this Treatise immoderately, and the many avocations, which prevent me from launching too far into what may be less within the bounds of medicine, I should be fearful of digressing too much from my subject. What I have hitherto said, however, I think cannot be impertinent to it; since in giving advice to the people, with regard to their health, it was necessary to display to them the causes that impaired it: Tho' what I might be able to add further on this head, would probably be thought more remote from the subject.

I shall add then but a single hint on the occasion. Is it not practicable, in order to render those evils which we cannot prevent, to select some particular part or canton of the country, wherein we should endeavour by rewards, *1st*, Irremovably to fix all the inhabitants. *2^{dly}*, To encourage them by other rewards to a plentiful and legitimate increase. They should not be permitted to go out of it, which must prevent them from being exposed to the evils I have mentioned. They should by no means intermarry with any strangers, who might introduce such disorders among them. Thus very probably this canton after a certain time, would become even over peopled, and might send out colonies to the others.

Another cause, still more considerable than those we have already mentioned, has, to this very moment, prevented the increase of the people in France. This is the decay of agriculture. The inhabitants of the country, to avoid serving in the militia; to elude the days-service imposed by their lords, and the taxes; and being attracted to the city by the hopes of interest, by laziness and libertinage, have left the country nearly deserted. Those who remain behind, either not being encouraged to work, or not being sufficient for what there is to do, content themselves with cultivating just as much as is absolutely necessary for their subsistence. They have either lived single, or married but late; or perhaps, after the example of the inhabitants of the cities, they have refused to fulfil their duty to nature, to the state, and to a wife. The country deprived of tillers, by this expatriation and inactivity, has

has yielded nothing ; and the depopulation of the state has daily increased, from the reciprocal and necessary proportion between subsistence and population, and because agriculture alone can increase subsistence. A single comparison will sufficiently evince the truth and the importance of these principles, to those who have not seen them already divulged and demonstrated in the works of the friend of man *.

“ An old Roman, who was always ready to return to
“ the cultivation of his field, subsisted himself and his
“ family from one acre of land. A savage, who neither
“ sows nor cultivates, consumes, in his single person, as
“ much game as requires fifty acres to feed them. Con-
“ sequently *Tullus Hostilius*, on a thousand acres,
“ might have five thousand subjects : while a savage
“ chief, limited to the same extent of territory, could
“ scarcely have twenty : Such an immense disproportion
“ does agriculture furnish, in favour of population. Ob-
“ serve these two great extremes. A state becomes dis-
“ peopled or peopled in that proportion, by which it re-
“ cedes from one of these methods, and approaches to
“ the other.” Indeed it is evident, that wherever there
is an augmentation of subsistence, an increase of population will soon follow ; which again will still further facilitate the increase of provisions. In a state thus circumstanced men will abound, who, after they have furnished sufficient numbers for the service of war, of commerce, of religion, and for arts and professions of every kind, will further also furnish a source for colonies, who will extend the name and the prosperity of their nation to distant regions. There will ensue a plenty of commodities, the superfluity of which will be exported to other countries, to exchange for other commodities, that are not produced at home ; and the balance, being received in money, will make the nation rich, respectable by its neighbours, and happy. Agriculture, vigorously pursued, is equal to the production of all these benefits ; and the present age will enjoy the glory of restoring it, by favouring and encouraging cultivators, and by forming societies for the promotion of agriculture.

I now proceed to the fourth cause of depopulation, which is the manner of treating sick people in the country. This has often affected me with the deepest concern. I

* The Marquis of Mirabeau.

have been a witness, that maladies, which in themselves would have been gentle, have proved mortal from unskilful treatment: I am convinced that this cause alone makes as great a havock as the former; and certainly it requires the utmost attention of physicians, whose duty it is to labour for the preservation of mankind. While we are employing our assiduous cares on the more polished and fashionable part of them in cities, the larger and more useful moiety perish in the country: either by particular, or by highly epidemical diseases, which, within a few years past, have appeared in different villages, and made no small ravages. This afflicting consideration has determined me to publish this little work, which is solely intended for those patients, who, by their distance from physicians, are deprived of their assistance. I shall not give a detail of my plan, which is very simple in this part; but content myself with affirming, that the utmost care has been used, to render it as useful as possible: And I hope, that, if all the advantages have not been fully displayed, I have at least sufficiently shewn those pernicious methods of treating diseases, that should incontestibly be avoided. I am thoroughly convinced, the design might be accomplished more completely than I have done it; but those who are so capable of, do not attempt, it; I happen to be less timid; and I hope that the thinking persons will rather take it in good part of me, to have published a book, the composing of which is rather disagreeable from its very facility; from the minute details, which however are indispensable; and from the impossibility of discussing any part of it (consistently with the plan) to the bottom of the subject; or of displaying any new and useful prospect. It may be compared, in some respects, to the works of a spiritual guide, who was to write a catechism for little children.

At the same time I am not ignorant there have already been a few books calculated for country patients, who are remote from succour: But some of these, though published with a very good intention, produce a bad effect. Of this kind are all collections of receipts or remedies, without the least description of the disease; and of course without just directions for the exhibition, or application of them. Such, for example, is the famous collection of Madam FOUQUET, and some more in the same manner. Some others approach towards my plan; but many of them

them have taken in too many distempers, whence they are become too voluminous. Besides, they have not dwelt sufficiently upon the signs of the diseases; upon their causes; the general regimen in them, and their mismanagement. These receipts are not generally as simple, and as easy to prepare, as they ought to be. In short, the greater part of their writers seem, as they advanced, to have grown tired of their melancholy task, and to have hurried them out too expeditiously. There are but two of them, which I must name with respect, and which being proposed on a plan very like my own, are executed in a superior manner, that merits the highest acknowledgements of the public. One of these writers is M. ROSEN, first physician of the kingdom of *Sweden*; who, some years since, employed his just reputation to tender the best services to his countrymen. He had made them retrench from the almanacs those ridiculous tales, those extraordinary adventures, those pernicious astrological injunctions, which, there as well as here, answer no end, but that of keeping up in ignorance, credulity, superstition, and the falsest prejudices, on the interesting articles of health, of diseases, and of remedies. He has also taken care to publish simple plain Treatises on the most popular distempers; which he has substituted in the place of the former heap of absurdities. These concise works, however, which appear annually in their almanacs, are not yet translated from the *Swedish*, so that I was unqualified to make any extracts from them. The other is the Baron VAN SWITEN, first physician to their Imperial Majesties; who, about two years since, has affected for the use of the army, what I now attempt for sick people in the country. Though my work was greatly advanced when I first saw his, I have taken some passages from it: And had our plans been exactly alike, I should imagine I had done the public more service by endeavouring to extend the reading of his book, than by publishing a new one. Nevertheless, as he is silent on many articles, of which I have treated diffusively: as he has treated of many distempers, which did not come within my plan; and has said nothing of some others which I could not omit; our two works, without entering into the particulars of the superior merit of the Baron's, are very different, with regard to the subject of the diseases; though, in such as we have both considered, I account it an honour to me, to find we have almost constantly proceeded upon the same principles.

The present work is by no means addressed to such physicians as are thoroughly accomplished in their profession ; yet possibly, besides my particular medical friends, some others may read it. I beg the favour of all such fully to consider the intention and spirit of the author, and not to censure him, as a physician, from the composition of this book. I even advise them here rather to forbear perusing it ; as a production, that can teach them nothing. Such as read in order to criticize, will find a much greater scope for exercising that talent on the other pamphlets I have published. It were certainly unjust that a performance, whose sole abstracted object is the health and service of my countrymen, should subject me to any disagreeable consequences ; and a writer may fairly plead an exemption from severity of censure, who has had the courage to execute a work, which cannot pretend to a panegyric.

Having premised thus much in general, I must enter into some detail of those means, that seem the most likely to me, to facilitate the beneficial consequence, which, I hope, may result to others from my present endeavours. I shall afterwards give an explanation of some terms which I could not avoid using, and which, perhaps, are not generally understood.

The title of *Advice to the People*, was not suggested to me by an illusion, which might persuade me this book would become a piece of furniture, as it were, in the house of every peasant. Nineteen out of twenty will probably never know of its existence. Many may be unable to read, and still more unable to understand it, plain and simple as it is. I have principally calculated it for the perusal of intelligent and charitable persons, who live in the country ; and who seem to have, as it were, a call from Providence to assist their less intelligent poor neighbours with their advice.

It is obvious, that the first gentlemen I have my eye upon, are the clergy. There is not a single village, a hamlet, nor even the house of an alien in the country, that has not a right to the good offices of some one of this order. And I assure myself there are a great number of them, who, heartily affected with the distress of their ailing flocks, have wished many hundred times that it were in their power to give their parishioners some bodily help, at the very time they were disposing them to prepare for death ; or so far to delay the fatality of the distemper, that the sick might have an opportunity of living more religiously afterwards. I shall think myself happy, if such truly respectable ecclesiastics shall find any resources in this performance

formance that may conduce to the accomplishment of their beneficent intentions. Their regard, their love for their people; their frequent invitations to visit their principal neighbours; their duty to root out all unreasonable prejudices, and superstition; their charity, their learning; the facility with which their general knowledge in physics qualifies them to comprehend thoroughly all the medical truths and contents of this piece, are so many arguments to convince me, that they will have the greatest influence to procure that reformation, in the administration of physic to poor country-people, which is so necessary and so desirable an object.

In the next place, I dare assure myself of the concurrence of gentlemen of quality and opulence, in their different parishes and estates, whose advice is highly regarded by their inferiors; who are so powerfully adapted to discourage a wrong, and to promote a right practice, of which they will easily discern all the advantages. The many instances I have seen of their entering, with great facility, into all the plan and conduct of a cure; their readiness, and even earnestness, to comfort the sick in their villages, and the generosity with which they prevent their necessities, induce me to hope, from judging of these I have not the pleasure to know, by those whom I have, that they will eagerly embrace an opportunity of promoting a new method of doing good in their neighbourhood. Real charity will apprehend the great probability there is of doing mischief, though with the best intention, for want of a proper knowledge of material circumstances; and the very fear of that mischief may sometimes suspend the exercise of such charity; notwithstanding it may seize, with the most humane avidity, every light that can contribute to its own beneficent exertion.

Thirdly, persons who are rich, or at least in easy circumstances, whom their disposition, their employments, or the nature of their property fixes in the country, where they are happy in doing good, will be pleased to have some proper directions for the conduct and effectuation of their charitable intentions.

In every village, where there are any persons of these three conditions, they are always readily apprized of the distempers in it, by their poor neighbours coming to intreat a little soup, Venice treacle, wines, biscuits, or any thing they imagine necessary for their sick folks. In consequence of some questions to the by-standers, or of a visit

to the sick person, they will judge at least of *what kind* the disease is ; and by their prudent advice they may be able to prevent a multitude of evils. They will give them some nitre instead of Venice-treacle ; barley, or sweet whey in lieu of soup : They will advise them to have recourse to glysters, or bathings of their feet, rather than to wine ; and order them gruel rather than biscuits. A man would scarcely believe till after the expiration of a few years, how much good might be effected by such proper regards, so easily comprehended, and often repeated. At first indeed there may be some difficulty in eradicating old prejudices, and inveterately bad customs ; but whenever these were removed, good habits would strike forth full of as strong roots, and I hope that no person would be inclined to destroy them.

It may be unnecessary to mention, that I have more expectation from the care and goodness of the ladies, than from those of their spouses, their fathers, or brothers. A more active charity, a more durable patience, a more domestic life, a sagacity, which I have greatly admired in many ladies, both in town and country, that disposes them to observe, with great exactness, and to unravel, as it were, the secret causes of the symptoms, with a facility that would do honour to very good practitioners, and with a talent adapted to engage the confidence of the patient :— All these, I say, are so many characteristical marks of their vocation in this important and amicable duty ; nor are there a few, who fulfil it with zeal, that merits the highest commendation, and renders them excellent models for the imitation of others.

Those who are intrusted with the education of youth, may also be supposed sufficiently intelligent to take some part in this work ; and I am satisfied that much good might result from their undertaking it. I heartily wish, they would not only study to *distinguish the distemper* (in which the principal, but by no means an insuperable difficulty consists, and to do which I hope I have considerably put them in the way), but I would have them learn also the manner of applying remedies. Many of them shave ; I know some who bleed, and who have given glysters very expertly. This however all may easily learn ; and perhaps it would not be imprudent, if the art of bleeding expertly were reckoned a necessary qualification, when they are examined for their employment. These faculties, that of estimating the degree of a fever, and how to apply and dress

dress blisters, may be of great use within the neighbourhood of their residence. Their schools, which are not frequently over-crowded, employ but a few of their daily hours; the greatest part of them have no land to cultivate; and to what better use can they apply their leisure, than to the assistance and comfort of the sick? The moderate price of their service may be so ascertained, as to incommode no person; and this little emolument might render their own situation the more agreeable: Besides which, these little avocations might prevent their being drawn aside sometimes, by reason of their facility and frequent leisure, so as to contract a habit of drinking too often. Another benefit would also accrue from accustoming them to this kind of practice; which is, that being habituated to the care of sick people, and having frequent opportunities to write, they would be the better qualified, in difficult cases, to advise with those who were thought further necessary to be consulted.

Likely among labourers there may be many (for some such I have known) who being endued with good natural sense and judgment, and abounding with benevolence, will read this book with attention, and eagerly extend the maxims and the methods it recommends.

And finally, I hope that many surgeons, who are scattered about the country, and who practise physic in their neighbourhood, will peruse it; will carefully enter into the principles established in it, and will conform to its directions, though a little different perhaps from such as they may have hitherto practised. They will perceive a man may learn at any age, and of any person; and it may be hoped they will not think it too much trouble to reform some of their notions in a science, which is not properly within their profession (and to the study of which they were never instituted) by those of a person who is solely employed in it and who has had many assistances of which they are deprived.

Midwives may also find their attendance more efficacious, as soon as they are thoroughly disposed to be better informed.

It were heartily to be desired, that the greater part of them had been better instructed in the art they profess*.

* The midwives in Scotland have many of them had an opportunity of attending lectures at Edinburgh, which, it is hoped, in time may have a very happy effect.

The instances of mischief that might have been avoided, by their being better qualified, are frequent enough to make us wish there may be no repetition of them, which it may be possible to prevent. Nothing seems impossible, when persons in authority are zealously inclined to prevent every such evil; and it is time they should be properly informed of one so essentially hurtful to society.

The prescriptions I have given consist of the most simple remedies, and I have adjoined the manner of preparing them so fully, that I hope no person can be at any loss in that respect. At the same time, that no one may imagine they are the less useful and efficacious for their simplicity, I declare they are the same I ordered in the city for the most opulent patients. This simplicity is founded in nature: The mixture, or rather the confusion of a multitude of drugs, is ridiculous. If they have the very same virtues, for what purpose are they blended? It were more judicious to confine ourselves to that which is the most effectual. If their virtues are different, the effect of one destroys or lessens the effects of the other, and the medicine ceases to prove a remedy.

I have given no direction, which is not very practicable and easy to execute; nevertheless it will be discernible, that some few are not calculated for the multitude, which I readily grant. However I have given them, because I did not lose sight of some persons, who, though not strictly of the multitude, or peasantry, do live in the country, and cannot always procure a physician as soon, or for as long a time, as they gladly would.

A great number of the remedies are entirely of the country growth, and may be prepared there; but there are others, which must be had from the apothecaries. I have set down the price at which I am persuaded all the country apothecaries will retail them to a peasant, who is not esteemed a rich one. I have marked the value, not from any apprehension of their being imposed on in the purchase, for this I do not apprehend; but that seeing the cheapness of the prescription, they may not be afraid to buy it. The necessary dose of the medicine, for each disease, may generally be purchased for less money than would be expended on meat, wine, biscuits, and other improper things. But should the price of the medicine, however moderate, exceed the circumstances of the sick, doubtless the common purse, or the poor's-box will defray it; moreover, there are in many country places noblemen and gentlemen's
houses,

houses, some of whom charitably contribute an annual sum towards buying of medicines for poor patients. Without adding to which sum, I would only intreat the favour of each of them to alter the objects of it, and to allow their sick neighbours the remedies and the regimen directed here, instead of such as they formerly distributed among them.

Perhaps it may be objected, that many country places are very distant from large towns; from which circumstance a poor peasant is incapable of procuring himself a seasonable and necessary supply in his illness, I readily admit, that in fact there are many villages very remote from such places as apothecaries reside in. Yet, if we except a few among the mountains, there are but very few of them above three or four leagues from some little town, where there always lives some surgeon, or some vender of drugs. Perhaps, however, even at this time, indeed, there may not be many thus provided: but they will take care to furnish themselves with such materials, as soon as they have a good prospect of selling them, which may constitute a small but new branch of commerce for them, I have carefully set down the time, for which each medicine will keep, without spoiling. There is a very frequent occasion for some particular ones, and of such the schoolmasters may lay in a stock. I also imagine, if they will heartily enter into my views, they will furnish themselves with such implements, as may be necessary in the course of their attendance. If any of them were unable to provide themselves with a sufficient number of good lancets, an *apparatus* for cupping, and a glyster-syringe (for want of which last a pipe and bladder may be occasionally substituted), the parish might purchase them, and the same instruments might do for the succeeding schoolmaster. It is hardly to be expected, that all persons in that employment would be able, or even inclined, to learn the way of using them with address; but one person who did, might be sufficient for whatever occasions might occur in this way in some contiguous villages, with very little neglect of their functions among their scholars.

Daily instances of persons, who come from different parts to consult me without being capable of answering the questions I ask them, and the like complaints of many other physicians on the same account, engaged me to write the last chapter of this work. I shall conclude this Introduction with some remarks necessary to facilitate the

knowledge of a few terms, which were unavoidable in the course of it.

The pulse commonly beats in a person in good health, from the age of eighteen or twenty to about sixty-six years, between sixty and seventy times in a minute. It sometimes comes short of this in old persons, and in very young children it beats quicker : until the age of three or four years the difference amounts at least to a third ; after which it diminishes by degrees.

An intelligent person, who shall often touch and attend to his own pulse, and frequently to other people's, will be able to judge, with sufficient exactness, of the degree of a fever in a sick person. If the strokes are but one third above their number in a healthy state, the fever is not very violent ; which it is, as often as it amounts to half as many more as in health. It is very highly dangerous, and may be generally pronounced mortal, when there are two strokes in the time of one. We must not however judge of the pulse solely by its quickness, but by its strength or weakness, its hardness or softness, and the regularity or irregularity of it.

There is no occasion to define the strong and the feeble pulse. The strength of it, for the most part, affords a good prognostic, and supposing it too strong, it may easily be lowered. The weak pulse is often very menacing.

When the pulse, in meeting the touch, excites the notion of a dry stroke, as though the artery consisted of wood, or of some metal, we term it *hard* ; the opposite to which is called *soft* , and generally promises better. If it be strong and yet soft, even though it be quick, it may be considered as a very hopeful circumstance. But if it is strong and hard, that commonly is a token of an inflammation, and indicates bleeding and the cooling regimen. Should it be at the same time small, quick, and hard, the danger is indeed very pressing.

We call that pulse regular, a continued succession of whose strokes are made in equal intervals of time : and in which intervals not a single stroke is wanting (since if that is its state, it is called an intermitting pulse). The beats or pulsations are likewise supposed to resemble each other so exactly in quality too, that one is not strong, and the next alternately feeble.

So long as the state of the pulse is promising, and respiration

ration or breathing is free, when the brain does not seem to be greatly affected, while the patient takes his medicines, and they are attended with the consequence that was expected, and he both preserves his strength pretty well, and continues sensible of his situation, we may reasonably hope for his cure. As often as all, or the greater number of these characterising circumstances are wanting, he is in very considerable danger.

The stoppage of perspiration is often mentioned in the course of this work. The discharge of that fluid which continually passes off through the pores of the skin, is called *Transpiration*; and which, though invisible, is very considerable. For if a person in health eats and drinks to the weight of eight pounds daily, he does not discharge four of them by stool and urine together, the remainder passing off by insensible transpiration. It may easily be conceived, that if so considerable a discharge is stopped, or considerably lessened; and if this fluid, which ought to transpire through the skin, should be transferred to any inward part, it must occasion some dangerous complaint. In fact, this is one of the most frequent causes of diseases.

To conclude very briefly——All the directions in the following treatise are solely designed for such patients as cannot have the attendance of a physician. I am far from supposing, they ought to supply the place of one, even in these diseases of which I have treated in the fullest manner: And the moment a physician arrives, they ought to be laid aside. The confidence reposed in him should be entire, or there should be none. The success of the event is founded in that. It is his province to judge of the disease, to select medicines against it; and it is easy to foresee the inconveniences that may follow, from proposing to him to consult with any others, preferably to those he may chuse to consult with, only because they have succeeded in the treatment of another patient, whose case they suppose to have been nearly the same with the present case. This were almost the same, as to order a shoe-maker to make a shoe for one foot by the pattern of another shoe, rather than by the measure he has just taken.

✱ Although this very sensible Introduction, is adapted to the way of life among the people in Switzerland, yet as in most instances, (with a very few alterations) it is also applicable to the British subjects, it has been judged proper to give it entire.

The

The rules proposed for the preservation of the people, and for encouraging population, are certainly highly interesting to the British nation, after so bloody a war; but by encouraging trade, manufactures, agriculture, fisheries, &c. it is hoped we may be soon in a condition to withstand all the attempts of our restless neighbours the French, who may try to retrieve their lost honour in the late war.

ADVICE

A D V I C E
TO THE
P E O P L E,

With Respect to their HEALTH.

CHAPTER I.

Of the usual Causes of Popular Maladies.

First cause, excessive labour.——Second, the effect of cold air, when a person is hot.——Third, taking cold drink, when in a heat.——Fourth, the inconstancy and sudden change of the weather.——Fifth, the situation of dung-hills, and marshes, near inhabited houses, and the bad confined air in the houses.——Sixth, drunkenness.——Seventh, the food of country people.——Eighth, the situation, or exposure of houses.——Concerning the drink of country people.

SECT. I.

FATIGUING labour, too long continued, is the first cause of those maladies, which so often attack the inhabitants of both city and country. Its effects, in the first place, are for the most part inflammatory diseases, such as Quinsies, Pleurifies, defluxions of the breast, &c.

In

In the second place, (but much more rarely) is that state of weakness and languor into which they fall, and from which they with difficulty recover.

§ 2. There are two ways of preventing these maladies. The first is, to avoid the cause that produces them; but this is often impossible. The second is, where there is a necessity of committing these excesses, to diminish their effects, by drinking largely of cooling draughts, such as whey, butter-milk, or even water *; to every quart † of which a glass of vinegar may be added, or the juice of grapes, of cherries, or gooseberries not fully ripened. These form an agreeable draught, which strengthens and sustains the labourer.

If sufficient precautions of this kind have not been taken, either inflammatory diseases or exhaustion are the consequence. I shall treat of inflammatory disorders hereafter.

§ 3. A second very ordinary cause of disease, is when a person overheated by labour, reposes in a cold place, as by lying down on wet ground, or even on such land as appears dry, though there always arises a cold moisture from it. This at once stops perspiration, and this perspirable matter being thrown on some internal organ, occasions violent diseases, especially quinseys, rheumatisms, inflammations of the breast, pleurisies, and inflammatory colicks. It happens too often that the blood, during great heat and violent labour of the body, is forced into small vessels, which it does not reach, but where the circulation is much accelerated, and is there fixed by the effect of sudden cold, and thus forms the inflammations in those parts. One may always prevent the danger by avoiding the cause, which often destroys numbers. But when this takes place, as soon as the patient feels the first symptoms of the malady (which sometimes does not happen till several days after) he should immediately let blood, bathe his legs in warm water, and after being well rubbed before the fire, he should drink a good quantity of the tepid infusion, No. 1. Such remedies often prevent the disease. But, on the contrary, the evil becomes more

* These cooling draughts may, if the person is greatly heated, be very pernicious. See § 4.

† i. e. Half a Scots pint.

dangerous, when people try to procure a sweat by heating medicines.

§ 4. A third cause of disease, is drinking cold water, while one is much heated. This last operates as the former, but the bad effects are generally more violent, and sooner felt. I have seen some terrible examples of this. Violent quinsies, inflammations of the breast, colicks, inflammations of the liver, and in the region of the belly, attended with swellings, vomitings, suppression of urine, and terrible anguish. The best remedies are an ample bleeding in the beginning, drinking warm water, to which a fifth part of whey has been added, or the ptisan, No. 2. or the milk of almonds, No. 4. drank warm, fomentations of tepid water applied to the throat, breast, and belly, gysters of warm water and milk. In this, and the preceding case, a half bath of warm water, after bleeding, has often given immediate relief.

It seems astonishing that our peasants should so often indulge themselves in this bad custom, while they are very careful to preserve their cattle from it. None of them will permit their horses to drink while hot, especially if they are to stand still after it. They know that this will kill them, and yet without scruple expose themselves to the same danger. Nor is this the only instance in which they seem to pay more attention to their cattle's health than their own.

§ 5. A fourth cause, which affects all mankind, but especially the labourers, is the inconstancy of the climate. In one day we often feel it change from hot to cold, and from cold to hot. This renders catarrhs and rheumatisms so frequent. The best precaution against such diseases is, to get better clothed than the weather seems to call for. To put on our winter-dress early in Autumn, and quit it late in Spring. Labourers who throw off their clothes while at work, should never strip till an hour after sunrise, and should put on their clothes immediately on ending their work, or rather an hour before sun-set. The sudden variations in the temperature of the air from hot to moist and cold, should make our labourers of every kind, even those in the sedentary way, very attentive to these rules, which become still more important in those situations where rivers, woods, and mountains, entertain a perpetual humidity, and where the mornings and evenings are at all times, cold and moist. Such labourers as negligently hang their clothes on their country utensils, when they

they return from work, seldom miss to feel the bad effects of it. There are particular places, where the woods, mountains, and stagnated waters, keep up a constant humidity, and render the air unwholesome. Here it becomes particularly necessary to avoid going abroad after the sun has left the horizon; thus, if possible, to avoid the ague and such other diseases, as are frequent in those situations. Above all, nobody ought to sleep in the open air; this is generally mortal.

§ 6. Such sudden changes in the air, frequently are attended with deluges of cold rains, even in the hottest weather; and thus the body of the labourer streaming with sweat, is at once plunged into cold water. Hence the same diseases that attend any sudden transition from cold to hot, and these, demand the same remedies. The evil is not so fatal, if the sun shines out immediately after the rain; but if the cold continues, many fall sick.

It often happens, that the traveller gets wet without a possibility of avoiding it. This may be attended with no bad consequences, provided he shifts his clothes immediately after it. But I have often seen deadly pleurifies the consequence of omitting this precaution. When the body and legs have been wetted, the best way is to bathe in tepid water, or, at least, to have the body well rubbed before the fire, with dry warm cloaths. If the legs only have been wet, bathing them in warm water is enough. I have by these means, radically cured people subject to violent colicks, from having their feet wetted. This bath becomes still more efficacious, by dissolving some soap in it.

§ 7. A fifth cause, which is seldom noticed, probably indeed because it produces less violent consequences, and yet is certainly hurtful, is the common custom in all villages, of having their ditches or dunghills directly under their windows. Corrupted vapours are continually exhaling from them, which in process of time cannot fail of being prejudicial, and must contribute to produce putrid diseases. Those who are accustomed to the smell, become insensible of it: But the cause, nevertheless, does not cease to be unwholesomely active; and such as are unused to it perceive the impression in all its force.

§ 8. There are some villages, in which, after the curtain lines are erased, watery marshy places remain in the room of them. The effect of this is still more dangerous; because that putrified water, which stagnates during the
hot

hot season, suffers its vapours to exhale more easily, and more abundantly, than that in the curtain lines did. Having set out for *Pully le Grand*, in 1759, on account of an epidemical putrid fever which raged there, I was sensible, on traversing the village, of the infection from those marshes; nor could I doubt of their being the cause of this disease, as well as of another like it, which had prevailed there five years before. In other respects the village is wholesomely situated. It were to be wished such accidents were obviated by avoiding these stagnated places; or, at least, by removing them and the dunghills, as far as possible from the spot, where we live and lodge.

§ 9. To this cause may also be added the neglect of the peasants to air their lodgings. It is well known that too close an air occasions the most perplexing malignant fevers; and the poor country people respire no other in their own houses. Their lodgings, which are very small, and which, notwithstanding inclose (both day and night) the father, mother, and seven or eight children, besides some animals, are never kept open during six months in the year, and very seldom during the other six. I have found the air so bad in many of these houses, that I am persuaded, if their inhabitants did not often go out into the free open air, they must all perish in a little time. It is easy, however, to prevent all the evils arising from this resource, by opening the windows daily: so very practicable a precaution must be followed with the happiest consequences.

§ 10. I consider drunkenness as a sixth cause, not indeed as producing epidemical diseases, but which destroys, as it were, by retail at all times, and every where. The poor wretches, who abandon themselves to it, are subject to frequent inflammations in the breast, and to pleurisies, which often carry them off in the flower of their age. If they sometimes escape through these violent maladies, they sink, a long time before the ordinary approach of old age, into all its infirmities, and especially into an asthma, which terminates in a dropsy of the breast. Their bodies, worn out by excess, do not comply and concur, as they ought, with the force or operation of remedies; and diseases of weakness, resulting from this cause, are almost always incurable. It seems happy enough, that society loses nothing in parting with these subjects, who are a dishonour to it; and whose brutal souls are, in some measure, dead long before their carcases.

§ 11. The provisions of the common people are also frequently one cause of popular maladies. This happens, 1st, whenever the corn, not well ripened, or not well got in, in bad *harvests*, has contracted an unwholesome quality. Fortunately however this is seldom the case; and the danger attending the use of it may be lessened by some precautions, such as those of washing and drying the grain completely; of mixing a little wine with the dough, in kneading it; by allowing it a little more time to swell or rise, and by baking it a little more. 2dly, The fairer and better saved part of the wheat is sometimes damaged in the farmer's house, either because he does not take due care of it, or because he has no convenient place to preserve it, only from one summer to the next. It has often happened to me, on entering one of these bad houses, to be struck with the smell of wheat that has been spoiled. Nevertheless, there are known and easy methods to provide against this by a little care; though I shall not enter into a detail of them. It is sufficient to make the people sensible, that since their chief sustenance consists of corn, their health must necessarily be impaired by what is bad. 3dly, That wheat, which is good, is often made into bad bread, by not letting it rise sufficiently; by baking it too little, and by keeping it too long. All these errors have their troublesome consequences on those who eat it; but in a greater degree on children and valetudinarians, or weakly people.

Tarts or cakes may be considered as an abuse of bread, and this in some villages is increased to a very pernicious height. The dough is almost constantly bad, and often unleavened, ill baked, greasy, and stuffed with either fat or sour ingredients, which compound one of the most indigestible aliments imaginable. Women and children consume the most of this food, and are the very subjects for whom it is the most improper: Little children especially, who live sometimes for many successive days on these tarts, are, for the greater part, unable to digest them perfectly. Hence they receive a * source of obstructions in the bowels of the belly, and of a slimy viscosity or thickishness, throughout the mass of humours, which throws them into various diseases from weakness; slow fevers, a

* What the doctor here means, we suppose, is only to forbid the use of bad pastry, as the moderate use of good can have no ill effect on such as are in health, of whatever age or sex.

hectic, the rickets, the King's evil, and feebleness, for the miserable remainder of their days. Probably indeed there is nothing more unwholesome than dough not sufficiently leavened, ill baked, greazy, and soured by the addition of fruits. Besides, if we consider these tarts in an æconomical view, they must be found inconvenient also for the peasant on that account.

Some other causes of maladies may also be referred to the article of food, though less grievous and less frequent, into a full detail of which it is very difficult to enter: I shall therefore conclude that article with this general remark; that it is the care which peasants usually take in eating slowly, and chewing very well, that very greatly lessens the dangers from a bad regimen; and I am convinced they constitute one of the greatest causes of that health they enjoy. We may further add indeed the exercise which the peasant uses, and his long abiding in the open air, where he passes three fourths of his life; besides (which are also considerable advantages) his happy custom of going soon to bed, and of rising very early. It were to be wished, that in these respects, and perhaps on many other accounts, the inhabitants of the country were effectually proposed as models for reforming the citizens.

§ 12. We should not omit, in enumerating the causes of maladies among country people, the construction of their houses, a great many of which either lean, as it were, close to higher ground, or are sunk a little into the earth. Each of these situations subjects them to considerable humidity; which is certain greatly to incommode the inhabitants, and to spoil their provisions, if they have any quantity in store; which, as we have observed, is another, and not the least important source of their diseases. A hardy labourer is not immediately sensible of the bad influence of this moist and marshy habitation; but they operate at the long run, and I have abundantly observed their most evident bad effects, especially on women in childbed, on children, and in persons recovering of some distemper. It would be easy to prevent this inconvenience, by raising the ground on which the house stood some, or several inches above the level of the adjacent soil, by a bed of gravel, of some flints, pounded bricks, coals, or such other materials, and by avoiding to build immediately close to, or as it were, under a much higher soil.

This object, perhaps, may well deserve the attention of the public; and I earnestly advise as many as do build, to observe the necessary precautions on this head. Another, which would cost still less trouble, is to give the front of their houses an exposure to the south east. This exposure, supposing all other circumstances of the building and its situation to be alike, is both the most wholesome and most advantageous. I have seen it, notwithstanding, very often neglected, without the least reason being assigned for not preferring it.

These admonitions may possibly be thought of little consequence by three fourths of the people. I take the liberty of reminding them, however, that they are more important than they may be supposed; and so many causes concur to the destruction of men, that none of the means should be neglected, which may contribute to their preservation.

§ 13. The country-people in Switzerland drink, either 1, pure water; 2, some wine; 3, perry, made from wild pears, or sometimes cyder from apples; and, 4, a small liquor which they call *Piquette*, that is water, which has fermented with cake or husks of the grapes, after their juice has been expressed. Water however is their most general drink; wine rarely falling in their way, but when they are employed by rich folks; or when they can spare money enough for a debauch. Fruit-wines and the * *Piquettes* are not used in all parts of the country; they are not made in all years; and keep but for some months.

Our waters in general, are pretty good; so that we have little occasion to trouble ourselves about purifying them; and they are all well known in those provinces

* The drinks of this country are generally prepared from malt, and provided they are not rendered too strong, are more wholesome than either cyder, perry, &c. or water. The former when taken too new, or in great quantities, are liable to run into a dangerous fermentation, and cause acidities, colics, cholera morbus, and other diseases of the stomach and bowels; as is well known in the cyder-counties of England. Vide Dr. Huxham de Colica Damnon. The latter is generally too weak for labouring people, who require something more invigorating and strengthening; and besides, unless great precaution is taken, it may be received into the body too cold, and thereby produce all the bad effects mentioned in § 4 of this chapter.

where

where they are chiefly and necessarily used *. The pernicious methods taken to improve or meliorate, as it is falsely called, bad wines, are not as yet sufficiently practised among us, for me to treat of them here: And as our wines are not hurtful of themselves, they become hurtful, only from their quantity. The consumption of made wines and *piquettes*, is but inconsiderable, and I have not hitherto known of any ill effects from them, so that our liquors cannot be considered as causes of distempers in our country; but in proportion to our abuse of them by excess. The case is differently circumstanced in some † other countries; and it is the province of physicians who reside in them, to point out to their countrymen the methods of preserving their health, as well as the proper and necessary remedies in their sickness.

* What our author alledges of the waters of his country, is true of this. They are generally pure. In some places however they may be less so, and therefore a few directions concerning them may not be amiss.

If only turbid, they may be purified by being allowed to rest; but where slimy or so muddy, as not easily to subside by standing, filtration through sand, or some of the lighter or more spongy kinds of stone, may be practised with advantage.

But where the water is hard or brackish, so as not to dissolve soap, or to soften pease, or other kind of pulse, it should, if possible, be distilled; if that cannot be done, it should first be boiled with bread or some farinaceous vegetables.

Where it is putrid, it should be kept till it recovers its natural sweetness; or at least a small quantity of sea salt, vinegar, or some grateful aromatic herb should be used.

Where good water is very scarce, all opportunities of collecting rain-water should be embraced; as that is found to be the purest, where it is received into clean vessels placed at a distance from houses or other surrounding bodies.—By these means the causes of many disorders may be avoided.

† Many persons, with a design to preserve their wines, add shot to them, or preparations of lead, alum, &c. The government should forbid, under the most severe penalties, all such adulterations, as tend to introduce the most painful colics, obstructions, and a long train of evils, which it sometimes proves difficult to trace to this peculiar cause; while they shorten the lives of, or cruelly torment, such over-credulous purchasers, as lay in a stock of bad wines, or drink of them, without distinction, from every wine-merchant or tavern.

C H A P. II.

Of the Causes which aggravate the Diseases of the People, with general considerations.

First Cause, The great Care employed to force the sick to sweat, and the methods taken for that purpose.—The Danger of hot Chambers.—The Danger of hot Drinks and heating Medicines.—Second, The Quantity and Quality of the Food given sick Persons.—Third, The giving Vomits and Purges at the beginning of the Disease.

S E C T. XIV.

TH E causes already enumerated in the first chapter occasion diseases ; and the bad regimen, or conduct of the people, on the invasion of them, render them still more perplexing, and very often mortal.

There is a prevailing prejudice among them, which is every year attended with the death of some hundreds in this country, and it is this—That all distempers are cured by sweat ; and that to produce sweat, they must take abundance of hot and heating things, and keep themselves very hot. This is a mistake in both respects, very fatal to the population of the state ; and it cannot be too much inculcated into country people, that by thus endeavouring to force sweating, at the very beginning of a disease, they are with great probability taking pains to kill themselves. I have seen some cases, in which the continual care to provoke this sweating, has as manifestly killed the patient, as if a ball had been shot through his brains ; as such a precipitate and untimely discharge carries off the thinner part of the blood, leaving the mass more dry, more viscid and inflamed. Now as in all acute diseases (if we except a very few, and those too much less frequent) the blood is already too thick, such a discharge must evidently increase the disorder, by co-operating with its cause. Instead of forcing out the watery, the thinner part of the blood, we should rather endeavour to increase it. There is not a single peasant, perhaps, who does not say, when he has a pleurisy, or an inflammation of his breast, that his blood is too thick, and that it cannot circulate. On seeing it in the basin after bleeding, he finds it *black, dry, burnt* ; these are his very words. How strange

strange is it then, that common sense should not assure him, that far from forcing out the *serum*, the watery part of such a blood by sweating, there is a necessity to increase it !

§ 15. But supposing it were as certain, as it is erroneous, that sweating was beneficial at the beginning of diseases, the means which they use to excite it would not prove the less fatal. The first endeavour is, to stifle the patient with the heat of a close apartment, and a load of covering. Extraordinary care is taken to prevent a breath of fresh air's getting into the room ; from which circumstance, the air already in it is speedily and extremely corrupted : and such a degree of heat is procured by the weight of the patient's bed-cloaths, that these two causes alone are sufficient to excite a most ardent fever, and an inflammation of the breast, even in a healthy man. More than once have I found myself seized with a difficulty of breathing, on entering such chambers, from which I have been immediately relieved, on obliging them to open all the windows. Persons of education must find a pleasure, I conceive, in making people understand, on these occasions, which are so frequent, that the air being more indispensibly necessary to us, if possible, than water is to a fish, our health must immediately suffer, whenever that ceases to be pure ; and in assuring them also, that nothing corrupts it sooner than those vapours, which continually steam from the bodies of many persons inclosed within a little chamber, from which the air is excluded. The absurdity of such conduct is a self evident certainty. Let in a little fresh air on these miserable patients, and lessen the oppressing burthen of their coverings, and you generally see upon the spot their fever and oppression, their anguish and raving to abate.

§ 16. The second method taken to raise a sweat in these patients is, to give them nothing but hot things, especially Venice-treacle, wine, or some *Faltranc* *, the greater part of the ingredients of which are dangerous, whenever there is an evident fever ; besides saffron, which is still more pernicious. In all feverish disorders we should gently cool, and keep the belly moderately open ; while the medicines just mentioned both heat and bind ; and

* Faltranc is a drink made of herbs, flowers, and bitters, which is in that country called Swiss tea.

hence we may easily judge of their inevitable ill consequences. A healthy person would certainly be seized with an inflammatory fever, on taking the same quantity of wine, of Venice-treacle, or of *Faltranc*, which the peasant takes now and then, when he is attacked by one of these disorders. How then shall a sick person escape dying by them? Die indeed he *generally* does, and sometimes with astonishing speed. I have published some dreadful instances of such fatality some years since, in another treatise. In fact they still daily occur, and unhappily every person may observe some of them in his own neighbourhood.

§ 17. But I shall be told, perhaps, that diseases are often carried off by sweat, and that we ought to be guided by experience. To this I answer, it is very true, that sweating cures some particular disorders, as it were, at their very onset; for instance, those stitches that are called spurious or false pleurifies, some rheumatic pains, and some colds or defluxions. But this only happens when the disorders depend solely and simply on stopped or abated perspiration, to which such pain instantly succeeds; and where immediately, before the fever has thickened the blood, and inflamed the humours; and where before any internal infarction, any load, is formed, some warm drinks are given, such as *Faltranc* and honey; and which, by restoring transpiration, remove the very cause of the disorder. Nevertheless, even in such a case, great care should be had not to rise too violent a commotion in the blood, which would rather restrain than promote sweat, to effect which, elder flowers are in my opinion preferable to *Faltranc*. Sweating is also of service in diseases, when their causes are extinguished, as it were, by plentiful dilution: Then indeed it relieves, by drawing off with itself some part of the distempered humours; after which their grosser parts have passed off by stool and by urine: Besides which, the sweat has also served to carry off that extraordinary quantity of water, we were obliged to convey into the blood, and which was become superfluous there. Under such circumstances, and at such a juncture, it is of the utmost importance indeed not to check the sweat, whether by choice, or for want of care. There might often be as much danger in doing this, as there would have been in endeavouring to force a sweat, immediately upon the invasion of the disorder; since the arresting of this discharge, under the preceding circumstances, might frequently

frequently occasion a more dangerous distemper, by repelling the humour on some inward vital part. As much care therefore should be taken not to check, imprudently, that evacuation by the skin, which naturally occurs towards the conclusion of diseases, as not to force it at their beginning, the former being almost constantly beneficial, the latter are constantly pernicious. Besides, were it even necessary, it might be very dangerous to force it violently; since by heating the patients greatly, a vehement fever is excited; they become scorched up in a manner, and the skin proves extremely dry. Warm water, in short, is the best of sudorifics.

If the sick are sweated very plentifully for a day or two, which may make them easier for some hours, these sweats soon terminate, and cannot be excited again by the same medicines. The dose thence is doubled, the inflammation is increased, and the patient expires in terrible anguish, with all the marks of a general inflammation. His death is ascribed to his want of sweating; when it really was the consequence of his sweating too much at first; and of his taking wine and hot sudorifics. An able Swiss Physician had too long since assured his countrymen, that wine was fatal to them in fevers; I take leave to repeat it again and again, and wish it may not be with as little success.

Our country folks, who, in health, naturally dislike red wine, prefer it when sick; which is wrong, as it binds them up more than white wine. It does not promote urine as well; but increases the force of the circulating arteries, and the thickness of the blood, which were already too considerable.

§ 18. Their diseases are also further aggravated by the food that is generally given them. They must undoubtedly prove weak, in consequence of their being sick; and the ridiculous fear of the patients dying of weakness, disposes their friends to force them to eat, which, increasing their disorder, renders the fever mortal. This fear is absolutely chimerical; never yet did a person in a fever die merely from weakness. They may be supported, even for some weeks, by water only; and are stronger at the end of that time, than if they had taken more solid nourishment; since, far from strengthening them, their food increases their disease, and thence increases their weakness.

§ 19. From the first invasion of a fever, digestion ceases. Whatever solid food is taken corrupts, and proves a source of putridity, which adds nothing to the strength of the sick, but greatly to that of the distemper. There are in fact a thousand examples to prove, that it becomes a real poison: And we may sensibly perceive that these poor creatures, who are thus compelled to eat, lose their strength, and fall into anxiety and ravings, in proportion as they swallow.

§ 20. They are also further injured by the quality, as well as the quantity, of their food. They are forced to sup strong gravy soups, eggs, biscuits, and even flesh, if they have but just strength and resolution to chew it. It seems absolutely impossible for them to survive all this trash. Should a man in perfect health be compelled to eat stinking meat, rotten eggs, stale sour broth, he is attacked with as violent symptoms, as if he had taken real poison, which, in effect, he has. He is seized with vomiting, anguish, a violent purging, and a fever, with raving, and eruptive spots, which we call the purple fever. Now when the very same articles of food, in their soundest state, are given to a person in a fever, the heat, and the morbid matter, already in his stomach, quickly putrify them; and after a few hours produce all the abovementioned effects. Let any man judge then, if the least service can be expected from them.

§ 21. It is a truth established by the first of physicians, above two thousand years past, and still further ratified by his successors, that as long as a sick person has a bad humour or ferment in his stomach, his weakness increases, in proportion to the food he receives. For this being corrupted by the infected matter it meets there, proves incapable of nourishing, and becomes a conjunct or additional cause of the distemper.

The most observing persons constantly remark, that whenever a feverish patient sups what is commonly called some good broth, the fever gathers strength, and the patient weakness. The giving such a soup or broth, though of the freshest, soundest meat, to a man who has a high fever, or putrid humours in his stomach, is to do him exactly the same service, as if you had given him, two or three hours later, stale putrid soup.

§ 22. I must also affirm, that this fatal prejudice, of keeping up the patient's strength by food, is still too much propagated, even among those very persons, whose talents
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and whose education might be expected to exempt them from any such gross error. It were happy for mankind, and the duration of their lives would generally be more extended, if they could be thoroughly persuaded of this medical, and so very demonstrable truth :—That the only things which can strengthen sick persons, are those which are able to weaken their disease ; but their obstinacy in this respect is inconceivable : It is another evil superadded to that of the disease, and sometimes the more grievous one. Out of twenty sick persons, who are lost in the country, more than two thirds might often have been cured, if, being only lodged in a place defended from the injuries of the air, they were supplied with abundance of good water. But that most mistaken cure and regimen I have been treating of, scarcely suffers one of the twenty to survive them.

§ 23. What further increases our horror at this enormous propensity to heat, dry up, and cram the sick, is, that it is totally opposite to what Nature herself indicates in such circumstances. The burning heat of which they complain ; the dryness of the lips, tongue and throat ; the flaming high colour of their urine ; the great longing they have for cooling things ; the pleasure and sensible benefit they enjoy from fresh air, are so many signs, or rather proofs, which cry out with a loud voice, that we ought to temperate and cool them moderately, by all means. Their foul tongues, which shew the stomach to be in the like condition, their loathing, their propensity to vomit, their utter aversion to all solid food, and especially to flesh ; the disagreeable stench of their breath ; their discharge of fetid wind upwards and downwards ; and frequently the extraordinary offensiveness of their excrements, demonstrate that their bowels are full of putrid contents, which must corrupt all the alliments superadded to them ; and that the only thing, which can prudently be done, is to dilute and temper them by plentiful draughts of refreshing cooling drinks, which may promote an easy discharge of them. I affirm it again, and I heartily wish it may be thoroughly attended to, that as long as there is any taste of bitterness, or of putrescence ; as long as there is a nausea or loathing, a bad breath, heat and feverishness, with fetid stools and little and high coloured urine ; so long all flesh, flesh soup, eggs, and all kind of food composed of them, or any of them, and all Venice-treacle,

treacle, wine, and all heating things, are so many absolute poisons.

§ 24. I may possibly be censured as extravagant and excessive on these heads by the public, and even by some physicians : But the true and enlightened physicians, those who attend to the effects of every particular, will find, on the contrary, that far from exceeding in this respect, I have rather feebly expressed their own judgment, in which they agree with that of all the good ones, who have existed within more than two thousand years ; that very judgment which reason approves, and continual experience confirms. The prejudices I have been contending against, have cost *Europe* some millions of lives.

§ 25. Neither should it be omitted, that even when a patient has very fortunately escaped death, notwithstanding all this care to obtain it, the mischief is not ended ; the consequences of the high aliments and heating medicines being, to leave behind the seed the principle of some low chronical disease ; which increasing insensibly, bursts out at length, and finally procures him the death he has even wished for, to put an end to his tedious sufferings.

§ 26. I must also take notice of another dangerous common practice ; which is that of purging, or vomiting a patient, at the very beginning of a distemper. Infinite mischiefs are occasioned by it. There are some cases indeed, in which evacuating medicines, at the beginning of a disease, are convenient and even necessary. Such cases shall be particularly mentioned in some other chapters : But as long as we are unacquainted with them, it should be considered as a general rule, that they are hurtful at the beginning ; this being true very often, and always, when the diseases are strictly inflammatory..

§ 27. It is hoped by their assistance, at that time, to remove the load and oppression of the stomach, the cause of a disposition to vomit, of a dry mouth, of thirst, and of so much uneasiness, and to lessen the leaven or ferment of the fever. But in this hope they are very often deceived ; since the causes of these symptoms are seldom of a nature to yield to these evacuations. By the extraordinary viscosity or thickness of the humours that foul the tongue, we should form our notions of those which line the stomach and the bowels. It may be washed, gargled, and even scraped to very little good purpose. It does not happen, until the patient has drank for many days, and the
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the heat, the fever and the great siziness of the humours are abated, that this filth can be thoroughly removed, which by degrees separates of itself. The state of the stomach being conformable to that of the tongue, no method can effectually scour and clean it at the beginning: But by giving refreshing and diluting remedies plentifully, it gradually frees itself; and the propensity to vomit, with its other effects and uneasinesses, to go off naturally, and without purges.

§ 28. Neither are these evacuations only negatively wrong, merely from doing no good; for considerable evil positively ensues from the application of those acrid irritating medicines, which increase the pain and inflammation; drawing the humours upon those parts that were already overloaded with them; which by no means expel the cause of the disease, that not being at this time fitted for expulsion, as not sufficiently concocted or ripe, and yet which evacuations, at the same time, discharge the thinnest part of the blood, whence the remainder becomes more thick; in short, which carry off the useful, and leave the hurtful humours behind.

§ 29. The vomit, especially, being given in an inflammatory disease, and even without any distinction in all acute ones, before the humours have been diminished by bleeding, and diluted by plentiful small drinks, is productive of the greatest evils; of inflammations of the stomach, of the lungs, and liver, of suffocations and frenzies. Purges sometimes occasion a general inflammation of the guts, which terminates in death. Some instances of each of these terrible consequences have I seen, from blundering temerity, imprudence and ignorance. The effect of such medicines, in these circumstances, are much the same with those we might reasonably expect, from the application of salt and pepper to a dry, inflamed, and foul tongue, in order to moisten and clean it.

§ 30. Every person of sound plain sense is capable of perceiving the truth of whatever I have advanced in this chapter: And there would be some degree of prudence, even in those who do not perceive the real meaning or good tendency of my advice, not to despise or oppose it too hardily. The question relates to a very important object; and in a matter quite foreign to themselves, they undoubtedly owe some deference to the judgment of persons, who have made it the study and business of their whole lives.

lives. It is not to myself that I hope for their attention, but to the greatest physicians, whose feeble instrument and echo I am. What interest have any of us in forbidding sick people to eat, to be stifled, or to drink such heating things as heighten their fever? What advantage can accrue to us from opposing the fatal torrent, which sweeps them off? What arguments can persuade people, that some thousand men of genius, of knowledge, and of experience, who pass their lives among a crowd and succession of patients; who are entirely employed to take care of them, and to observe all that passes, have been only amusing and deceiving themselves, on the effects of food, of regimen, and of remedies? Can it enter into any sensible head, that a nurse, who advises soup, an egg, or a biscuit, deserves a patient's confidence, better than a physician who forbids them? Nothing can be more disagreeable to the latter, than his being obliged to dispute continually in behalf of the poor patients; and to be in constant terror, lest this mortally officious attendance, by giving such food as augments all the causes of the disease, should defeat the efficacy of all the remedies he administers to remove it; and should fester and aggravate the wound, in proportion to the pains he takes to dress it. The more such absurd people love a patient, the more they urge him to eat, which in effect, verifies the proverb of *killing one with kindness*.

CHAP. III.

Of the means that ought to be used, at the beginning of diseases; and of the diet in acute diseases.

Signs which indicate approaching diseases, with means to prevent them.—The common regimen, or regulations for the sick.—The benefits of ripe sound fruits.—Cautions and means to be used on recovery.

SECT. 31.

HAVING clearly shewn the great dangers of the regimen, or diet, and of the principal medicines too generally made use of by the bulk of the people, on these occasions, I must now point out the actual method they may pursue, without any risque, on the invasion of some acute diseases, and the general diet which agrees with

with them all. As many as are desirous of reaping any benefit from this treatise, should attend particularly to this chapter; since, throughout the other parts of it, in order to avoid repetitions, I shall say nothing of the diet, except the particular distemper shall require a different one, from that of which I am now to give an exact detail. And whenever I shall say in general, that a patient is to be put upon a regimen, it will signify, that he is to be treated according to the method prescribed in this chapter; and all such directions are to be observed, with regard to air, food, drink, and glysters; except when I expressly order something else, as different ptisans, glysters, &c.

§ 32. The greater part of diseases (by which I always understand acute and feverish ones) often gives some notice of their approach a few weeks, and, very commonly, some days before their actual invasion; such as a light lassitude, or weariness, stiffness or numbness; less activity than usual, less appetite, a small load or heaviness at the stomach; some complaint in the head; a profounder degree of sleep, yet less composed, and less refreshing than usual; less gaiety and liveliness; sometimes a light oppression of the breast, a less regular pulse; a propensity to be cold; an aptness to sweat; and sometimes a suppression of a former disposition to sweat. At such a term it may be practicable to prevent, or at least considerably to mitigate, the most perplexing disorders, by carefully observing the four following points.

1. To omit all violent work or labour, but yet not so, as to discontinue a gentle easy degree of exercise.

2. To bring the complainant to content himself without any, or with very little, solid food; and especially to renounce all flesh, flesh broth, eggs, and wine.

3. To drink plentifully, that is to say, at least three pints, or even four pints daily, by small glasses at a time, from half hour to half hour of the ptisans No. 1. and 2. or even of warm water, to each quart of which may be added half a glass of vinegar. No person can be destitute of this very attainable assistance. But should there be a want even of vinegar, a few grains of common * salt may be added to a quart of warm water for drink. Those who have honey will do well to add two or three spoonfuls

* We apprehend that the few grains of common salt prescribed by our author may do no harm, but certainly cannot do good.

of it to the water. A light infusion of elder flowers, or of those of the linden, the lime-tree, may also be advantageously used, and even well settled and clear sweet whey.

4. Let the person, affected with such previous complaints, receive glysters of warm water, or the glyster No.

5. By pursuing these precautions some grievous disorders have often been happily rooted out; and although they should not prove so thoroughly efficacious, as to prevent their appearance, they may at least be rendered more gentle, and much less dangerous.

§ 33. Very unhappily people have taken the directly contrary method. From the moment these previous, these forerunning complaints are perceived, they allow themselves to eat nothing but gross meat, eggs, or strong meat-soups. They leave off garden-stuff and fruits, which would be so proper for them; and they drink heartily (under a notion of strengthening the stomach and expelling wind) of wine and other liquors, which strengthen nothing but the fever, and expel what degree of health might still remain. Hence all the evacuations are restrained; the humours causing and nourishing the diseases are not at all attempered, diluted, nor rendered proper for evacuation. Nay, on the very contrary, they become more sharp, and more difficult to be discharged; while a sufficient quantity of diluting refreshing liquor, assuages and separates all matters foreign to the blood, which it purifies, and, at the expiration of some days, all that was noxious in it is carried off by stool, by urine, or by sweat.

§ 34. When the distemper is further advanced, and the patient is already seized with that coldness or shuddering, in a greater or less degree, which ushers in all diseases, and which is commonly attended with an universal oppression, and pains over all the surface of the body; the patient, thus circumstanced, should be put to bed, if he cannot keep up; or should sit down as quietly as possible, with a little more covering than usual: He should drink every quarter of an hour a small glass of the ptisan No. 1. or 2. warm; or, if that is not at hand, of some one of those liquids I have recommended § 32.

§ 35. These patients earnestly covet a great load of covering, during the cold or shivering; but we should be very careful to lighten them as soon as it abates; so that when the succeeding heat begins, they may have no more than

than their usual weight of covering. It were to be wished, *perhaps*, they had rather less. The country people lie upon a feather bed, and under a downy coverlet, or quilt, that is commonly extremely heavy ; and the heat which is heightened and retained by feathers, is particularly troublesome to persons in a fever. Nevertheless, as it is what they are accustomed to, this custom may be complied with for one season of the year ; but during our heats, or whenever the fever is very violent, they should lie on a pallet (which will be infinitely better for them) and should throw away their coverings of down, so as to remain covered only with sheets, or something else less injurious than feather coverings. A person could scarcely believe, who had not been, as I have, a witness of it, how much comfort a patient is sensible of, in being eased of his former covering. The distemper immediately puts on a different appearance.

§ 36. As soon as the heat after the *rigor*, or coldness and shuddering approaches, and the fever is manifestly advanced, we should provide for the patient's *regimen*. And,

I Care should be taken that the air, in the room where he lies, should not be too hot, the mildest degree of warmth being very sufficient ; that there be as little noise as possible, and that no person speak to the sick, without a necessity for it. No external circumstance heightens the fever more, nor inclines the patient more to a *delirium* or raving, than the persons in the chamber, and especially about the bed. They lessen the spring, the elastic and refreshing power of the air ; they prevent a succession of fresh air ; and the variety of objects occupies the brain too much. Whenever the patient has been at stool, or has made urine, these excrements should be removed immediately. The windows should certainly be opened night and morning, at least for a quarter of an hour each time ; when also a door should be opened, to promote an entire renovation or change of the air in the room. Nevertheless, as the patient should not be exposed at any time to a stream or current of air, the curtains of his bed should be drawn on such occasions ; and, if he lay without any, chairs with blankets or cloaths hung upon them, should be substituted in the place of curtains, and surround the bed, while the windows continue open, in order to defend the patient from the force of the rushing air. If the season, however, be rigidly cold, it will be sufficient to keep the windows open,

open, but for a few minutes each time. In summer, at least one window should be set open day and night. The pouring a little vinegar upon a red hot shovel also greatly conduces to restore the spring, and correct the putridity of the air. In our greatest heats, when that in the room seems nearly scorching, and the sick person is sensibly and greatly incommoded by it, the floor may be sprinkled now and then; and branches of willow or ash trees dipt a little in pails of water.

§ 37. 2. With respect to the patient's nourishment, he must entirely abstain from all food; but he may always be allowed, and have daily prepared, the following sustenance, which is one of the wholesomest, and indisputably the simplest one. Take half a pound of bread, a morsel of the freshest butter about the size only of a hazel nut, (which may even be omitted too) three pints and one quarter of a pint of water: Boil them till the bread be entirely reduced to a thin consistence: Then strain it, and give the patient one eighth part of it every three, or every four hours; but still more rarely, if the fever be vehemently high. Those who have groats, barley, oatmeal, or rice, may boil and prepare them in the same manner, with some grains of salt.

§ 38. The sick may also be sometimes indulged, in lieu of these different spoon-meats, with raw fruits in summer, or in winter with apples baked or boiled, or plumbs and cherries dried and boiled. Persons of knowledge and experience will be very little, or rather not at all, surpris'd to see various kinds of fruit directed in acute diseases; the benefit of which they may here have frequently seen. Such advice can only disgust those who remain still obstinately attached to old prejudices. But could they prevail on themselves to reflect a little, they must perceive, that these fruits which allay thirst, which cool and abate the fever, which correct and attemper the putrid and heated bile, which gently dispose the belly to be rather open, and promote the secretion and discharge of the urine, must prove the properest nourishment for persons in acute fevers. Hence we see, as it were by a strong admonition from nature herself, they express an ardent longing for them; and I have known several, who would not have recovered, but for their eating secretly large quantities of those fruits they so passionately desired, and were refused. As many however as are not convinced by my reasoning in this respect, may at least make a trial of my advice, on my affirmation

mation and experience ; when I have no doubt but their own will speedily convince them of the real benefit received from this sort of nourishment. It will then be evident, that we may safely and boldly allow, in all continual fevers, cherries, red and black, strawberries, the best cured raisins, raspberries and mulberries ; provided that all of them be perfectly ripe. Apples, pears, and plumbs are less melting and diluting, less succulent, and rather less proper. Some kinds of pears however are extremely juicy, and even watry almost, such as the Dean or Valentia pear, different kinds of the Buree pear ; the St. Germaine, the Virgoleuse, the green sugary pear, and the Summer Royal, which may all be allowed ; as well as a little juice of very ripe plumbs, with the addition of water to it. This last I have known to assuage thirst in a fever, beyond any other liquor. Care should be taken, at the same time, that the sick should never be indulged in a great quantity of any of them at once, which would overload the stomach, and be injurious to them ; but if they are given a little at a time and often, nothing can be more salutary. Those whose circumstances will afford them China oranges, or lemons, may be regaled with the pulp and juice as successfully ; but without eating any of their peel, which is hot and inflaming.

• § 39. 3, Their drink should be such as allays thirst, and abates the fever ; such as dilutes, relaxes, and promotes the evacuations by stool, urine and perspiration. All the liquids which I have recommended in the preceding chapters, jointly and severally possess these qualities. A glass or a glass and a half of the juice of such fruits as I have just mentioned, may also be added to three full pints of water.

§ 40. The sick should drink at least twice or thrice that quantity daily, often, and a little at once, between three and four ounces, every quarter of an hour. The coldness of the drink should just be taken off.

§ 41. 4, If the patient has not two motions in the 24 hours, if the urine be in small quantity and high coloured, if he rave, the fever rage, the pain of the head and of the loins be considerable, with a pain in the belly and a propensity to vomit, the glyster N^o 5. should be given at least once a day. The people have generally an aversion to this kind of remedy ; notwithstanding there is not any more useful in feverish disorders, especially in those I have just recounted ; and one glyster commonly gives more relief

lief than if the patient had drank four or five times the quantity of his drinks. The use of glysters, in different diseases, will be properly ascertained in the different chapters, which treat of them. But it may be observed in this place, that they are never to be given at the very time the patient is in a sweat, which seems to relieve him.

§ 42. 5, As long as the patient has sufficient strength for it, he should sit up out of bed one hour daily, and longer if he can bear it; but at least half an hour. It has a tendency to lessen the fever, the head-ach, and a light-headedness, or raving. But he should not be raised, while he has a hopeful sweating: though such sweats hardly ever occur but at the conclusion of diseases, and after the sick has had several other evacuations.

§ 43. 6, His bed should be made daily while he sits up; and the sheets of the bed, as well as the patient's linen, should be changed every two days, if it can be done with safety. An unhappy prejudice has established a contrary, and really dangerous practice. The people about the patient dread the very thought of his rising out of bed; they let him continue there in nasty linen, loaden with putrid steams and humours; which contribute not only to keep up the distemper, but even to heighten it into some degree of malignity. I do again repeat it here, that nothing conduces more to continue the fever and raving, than confining the sick constantly to bed, and withholding him from changing his foul linen: By relieving him from both of which circumstances I have, without the assistance of any other remedy, put a stop to a continual delirium of twelve days uninterrupted duration. It is usually said, the patient is too weak, but this is a very weak reason. He must be in very nearly a dying condition, not to be able to bear these small commotions, which, in the very moment when he permits them, increase his strength, and immediately after abate his complaints. One advantage the sick gain by sitting up a little out of bed, is the increased quantity of their urine, with greater facility in passing it. Some have been observed to make none at all, if they did not rise out of bed.

A very considerable number of acute diseases have been radically, effectually, cured by this method, which mitigates them all. Where it is not used, as an assistance at least, medicines are very often of no advantage. It were to be wished the patient and his friends were made to understand, that distempers are not to be expelled at once with
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with rough and precipitate usage; that they must have their certain career or course; and that the use of the violent methods and medicines they chuse to employ, might indeed abridge the course of them, by killing the patient; but yet never otherwise shortened the disease; but, on the contrary, rendered it more perplexing, tedious and obstinate; and often entailed such unhappy consequences on the sufferer, as left him feeble and languid for the rest of his life.

§ 44. But it is not sufficient to treat, and, as it were, to conduct the distemper properly. The term of recovery from a disease requires considerable vigilance and attention, as it is always a state of feebleness, and, thence, of depression and faintness. The same kind of prejudice which destroys the sick, by compelling them to eat, during the violence of the disease, is extended also into the state of convalescence, or recovery; and either renders it troublesome and tedious; or produces fatal relapses, and often chronical distempers. In proportion to the abatement, and in the decline, of the fever, the quantity of nourishment may be gradually increased: But as long as there are any remains of it, their qualities should be those I have already recommended. Whenever the fever is completely terminated, some different foods may be entered upon; so that the patient may venture upon a little white meat, provided it be tender; some fish*; a little flesh soup, a few eggs at times, with wine properly diluted. It must be observed at the same time, that those very proper aliments which restore the strength, when taken moderately, delay the perfect cure, if they exceed in quantity, though but a little; because the action of the stomach being extremely weakened by the disease and the remedies, is capable only, as yet, of a small degree of digestion; and if the quantity of its contents exceed its powers, they do not digest, but become putrid. Frequent returns of the fever supervene; a continual faintishness, head-ache, a heavy drowsiness without a power of sleeping comfortably, flying pains and heats in the arms and legs; inquietude, peevishness, propensity to vomit; looseness, obstructions,

* The fish that are proper in this case are whittings, flounders, plaice, dabbs, or gudgeons; salmon, eel, carp, all the skate kind, haddock, and the like, should not be permitted, before the sick return to their usual state of health.

and sometimes a slow fever, with a collection of humours, that comes to suppuration.

All these bad consequences are prevented, by the recovering sick contenting themselves, for some time, with a very moderate share of proper food. We are not nourished in proportion to the quantity we swallow, but to what we digest. A person on the mending hand, who eats moderately, digests it, and grows strong from it. He who swallows abundantly does not digest it, and instead of being nourished and strengthened, he withers insensibly away.

§ 45. We may reduce, within the few following rules, all that is most especially to be observed, in order to procure a complete, a perfect termination of acute diseases; and to prevent their leaving behind them any impediments to health.

1. Let those, who are recovering, as well as those who are actually sick, take very little nourishment at a time, and take it often.

2. Let them take but one sort of food at each meal, and not change their food too often.

3. Let them chew whatever solid victuals they eat very carefully.

4. Let them diminish their quantity of drink. The best for them in general is water, with a fourth or third part of white wine. Too great a quantity of liquids at this time prevents the stomach from recovering its tone and strength; impairs digestion; keeps up weakness; increases the tendency to a swelling of the legs; sometimes even occasions a slow fever, and throws back the person recovering into a languid state.

5. Let them go abroad as often as they are able, whether on foot, in a carriage, or on horseback. This last exercise is the healthiest of all, and three fourths of the labouring people in this country, who have it in their power to procure it without expence, are in the wrong to neglect it. They, who would practise it, should mount before their principal meal, which should be about noon, and never ride after it. Exercise taken before a meal strengthens the organs of digestion, which is promoted by it. If the exercise is taken soon after the meal, it impairs it.

6. As people in this state are seldom quite as well towards night, in the evening they should take very little food.

food. Their sleep will be the less disturbed for this, and repair them the more, and sooner.

7. They should not remain in bed, above seven or eight hours.

8. The swelling of the legs and ancles, which happens to most persons at this time, is not dangerous, and generally disappears of itself, if they live soberly and regularly, and take moderate exercise.

9. It is not necessary, in this state, that they should go constantly every day to stool; though they should not be without one above two or three. If their costiveness exceeds this term, they should receive a glyster the third day, and even sooner, if they are heated by it, if they feel puffed up, are restless, and have any pains in the head:

10. Should they, after some time, still continue very weak, if their stomach is disordered, if they have, from time to time, a little regular fever, they should take three doses daily of the prescription No 14. which fortifies the digestions, recovers the strength, and drives away the fever.

11. They must by no means return to their labour too soon. This erroneous habit daily prevents many peasants from ever getting perfectly well, and recovering their former strength. From not having been able to confine themselves to repose and indolence for some days, they never become as hearty hardy workmen as they had been: And this premature hasty labour makes them lose in the consequence, every following week of their lives, more time than they ever gained, by their over early resuming of their labour. I see every day weakly labourers, vine-rooms, and other workmen, who date the commencement of their weakness from that of some acute disease, which for want of proper management through the term of their recovery, was never perfectly cured. A repose of seven or eight days, more than they allowed themselves, would have prevented all these infirmities; notwithstanding it is very difficult to make them sensible of this. The bulk, the body of the people, in this and in many other cases, look no further than the present day; and never extend their views to the following one. They are for making no sacrifice to futurity; which nevertheless must be done, to render it favourable to us.

C H A P. IV.

Of an Inflammation of the Breast.

The signs of this disease.—The advantages of bleeding.—Signs of recovery.—Of Crises, and the symptoms that precede them.—The danger of vomits, of purges, and of anodynes.—Of the suppression of expectoration, and the means to restore it.—Of the formation of Vomicae, or imposthumes in the lungs, and the treatment of them.—Of the danger of remedies, termed Balsamics.—The inefficacy of the antipeptic of Poterius.—Of an empyema.—Of a gangrene of the lungs.—Of a scirrhus of the lungs.

S E C T. 46.

THE inflammation of the breast, or peripneumony, or a fluxion upon the breast, is an inflammation of the lungs, and most commonly of one only, and consequently on one side. The signs by which it is evident, are a shivering, of more or less duration, during which the person affected is sometimes very restless and in great anguish, an essential and inseparable symptom; and which has helped me more than once to distinguish this disease certainly, at the very instant of its invasion. Besides this, a considerable degree of heat succeeds the shivering, which heat, for a few ensuing hours, is often blended, as it were, with some returns of chilliness. The pulse is quick, pretty strong, moderately full, hard and regular, when the distemper is not very violent; but small, soft and irregular, when it is very dangerous. There is also a sensation of pain, but rather light and tolerable, in one side of the breast; sometimes a kind of straitening or pressure on the heart; at other times pains through the whole body, especially along the reins; and some degree of oppression, at least very often; for sometimes it is but very inconsiderable. The patient finds a necessity of lying almost continually upon his back, being able to lie but very rarely upon either of his sides. Sometimes his cough is dry, and then attended with the most pain: at other times it is accompanied with a spitting or hawking up, blended with more or less blood, and sometimes with pure sheer blood. There is also some pain, or at least a sensation of weight or heaviness in the head; and frequently a propensity to have. The face is almost continually flushed and red:
Tho'

Tho' sometimes there is a degree of paleness and an air of astonishment at the beginning of the disease, which portend no little danger. The lips, the tongue, the palate, the skin are all dry: the breath hot; the urine little and high coloured in the first stage; but more plentiful, less flaming, and letting fall much sediment afterwards. There is a frequent thirst, and sometimes an inclination to vomit; which, imposing on the ignorant assistants, have often inclined them to give the patient a vomit, which is mortal, especially at this juncture. The heat becomes universal. The symptoms are heightened almost every night, during which the cough is more exasperated, and the spitting or expectoration in less quantity. The best expectoration is of a middling consistence, neither too thin, nor too hard and tough, like those which are brought up at the termination of a cold; but rather more yellow, and mixed with a little blood, which gradually becomes still less, and commonly disappears entirely, before the seventh day. Sometimes the inflammation ascends along the wind-pipe, and in some measure suffocates the patient, paining him considerably in swallowing, which makes him think he has a sore throat.

§ 47. Whenever the disease is very violent at first, or increases to be such, the patient cannot draw his breath, but when he sits up. The pulse becomes very small and very quick, the countenance livid, the tongue black, the eyes stare wildly; and he suffers inexpressible anguish, attended with incessant restlessness and agitation in his bed. One of his arms is sometimes affected with a sort of palsy; he raves without intermission; can neither thoroughly wake nor sleep. The skin of his breast and of his neck is covered (especially in close sultry weather, and when the distemper is extremely violent) with livid spots, more or less remarkable, which should be called *petechial* ones, but are improperly termed the *pourpre* or purple. The natural strength becomes exhausted; the difficulty of breathing increases every moment; he sinks into a lethargy, and soon dies a terrible death in country places, by the very effects of the inflaming medicines they employ on such occasions. It has been known in fact, that the use of them has raised the distemper to such a height, that the very heart has been rent open, which the dissection of the body has demonstrated.

§ 48. If the disease rushes on at once, with a sudden and violent attack; if the horror, the cold and shivering

last many hours, and are followed by a nearly scorching degree of heat; if the brain is affected from the very onset; if the patient has a small purging, attended with a *tenesmus*, or straining to stool, often termed a *Needy*; if he abhors the bed; if he either sweats excessively, or if his skin be extremely dry; if his natural manner and look are considerably changed; and if he spits up with much difficulty, the disease is extremely dangerous.

§ 49. He must directly, from the first seizure in this state, be put upon a regimen, and his drink must never be given cold. It should either be the barley-water N^o 2, the almond emulsion N^o 4, or that of N^o 7. The juices of the plants, which enter into the last of these drinks, are excellent remedies in this case; as they powerfully attenuate, or melt down the viscid thick blood, which causes the inflammation.

As long as the fever keeps up extremely violent, while the patient does not expectorate sufficiently, continues raving, has a violent head-ach, or raises up pure blood, the glyster N^o 5, must be given thrice, or at least twice, in twenty-four hours. However the principal remedy is bleeding. As soon as ever the preceding cold assault is over, twelve ounces of blood must be taken away at once; and, if the patient be young and strong, fourteen or even sixteen. This plentiful bleeding gives him more ease, than if twenty-four ounces had been drawn at three different times.

§ 50. When the disease is circumstanced as described (§ 46.) that first bleeding makes the patient easy for some hours; but the complaint returns; and to obviate its violence as much as possible, we must, except things promise extremely well, repeat the bleeding four hours after the first, taking again twelve ounces of blood, which pretty often proves sufficient. But if, about the expiration of eight or ten hours, it appears to kindle up again, it must be repeated a third, or even a fourth time. Yet, with the assistance of other proper remedies, I have seldom been obliged to bleed a fourth time, and have sometimes found the two first bleedings sufficient.

If the disease has been of several days duration, when I have first been called; if the fever is still very high; if there be a difficulty of breathing; if the patient does not expectorate at all, or brings up too much blood, without
being

being too solicitous about the day of the disease, the patient should be bled, though it were on the tenth *.

§ 51. In this, and in all other inflammatory diseases, the blood, is in a very thick and viscid state : And almost immediately on its being drawn, a white tough skin, somewhat like leather, is formed on its top, which most people have seen, and which is called the *pleuritic crust*. It is thought a promising appearance, when at each bleeding it seems less hard, and less thick, than it was at the preceding ones : And this is very generally true, if the sick feels himself, at the same time, sensibly better : But whoever shall attend *solely* to the appearance of the blood, will find himself often deceived. It will happen, even in the most violent inflammation of the breast, that this crust is not formed, which is supposed to be a very unpromising sign. There are also, in this respect, many odd appearances, which arise from the smallest circumstances ; so that we must not regulate the repetitions of our bleeding solely by this crust ; and in general we must not be over credulous in supposing, that the appearances in the blood, received into the basin, can enable us to determine, with certainty, of its real state in the body.

§ 52. When the sick person is in the condition described (§ 47.) the bleeding is not only unattended with ease, but sometimes it is also pernicious, by the sudden weakness to which it reduces him. Generally in such a case all medicines and means are insignificant : And it is a very bad sign in this disease, when this discharge is not attended with ease and benefit to the sick ; or when there are some circumstances, which oblige us to be sparing of it.

§ 53. The patient's legs should every day, for one half hour, be put into a bath of warm water, wrapping him up closely ; that the cold may not check that perspiration, which the bath promotes.

* This physician should however more particularly attend to the state of the expectoration, when the disease is greatly advanced ; because though this evacuation is highly necessary towards the cure, yet it is both slower, and more perfect, on account of the weakness of the patient. And this the rather, as these last efforts towards producing such evacuations, have been accompanied with such a hardness and frequency of the pulse, and such violent perturbations of the body, as to impose upon very knowing physicians, and to make them open a vein a few hours before the death of the patient ; excessive weakness accompanying, is the sign by which we distinguish them to be the last.

§ 54. Every two hours he should take two spoonfuls of the mixture No. 8, which promotes all the discharges, and chiefly that of expectoration.

§ 55. When the oppression and straitness are considerable, and the cough dry, the patient may receive the vapour of boiling water, to which a little vinegar has been added. There are two ways of effecting this; either by placing below his face, after setting him up, a vessel filled with such boiling hot water, and covering the patient's head and the vessel with a linen cloth, that may inclose the steam; or else by holding before his mouth a sponge dipped in the same boiling liquor. This last method is the least effectual, but it fatigues the patient considerably less. When this bad symptom is extremely pressing, vinegar alone should be used without water; and the vapour of it has often saved patients, who seemed to have one foot in the grave: But it should be continued for several hours.

§ 56. The outward remedies directed in No. 9, are also applied with success to the breast, and to the throat.

§ 57. When the fever is extremely high, the sick should take every hour a spoonful of the mixture No. 10, in a cup of the ptisan *, but without diminishing on this ac-

* The use of acids, in inflammations of the breast, requires no little consideration. Whenever the sick person has an aversion to them; when the tongue is moist, the stomach is heavy and disordered, and the habit and temperament of the patient is mild and soft; when the cough is very sharp without great thirst, we ought to abstain from them. But when the inflammation is joined to a dry tongue, to great thirst, heat, and fever, they are of great service. Slices of china-oranges sprinkled with sugar may be given first; a light lemonade may be allowed afterwards; and at last small doses of the mixture, No. 10, if it becomes necessary. E. L.

In this disease, and in pleurifies, more solid benefit has been received in Carolina, Virginia, &c. from the use of the Seneca rattle-snake root, than from any other medicine whatever. Bleeding indeed is necessarily premised to it; but it has often saved the necessity of many repeated bleedings. This medicine, which is termed in Latin, the *Polygalo Virginiana*, is certainly rather of a saponaceous attenuating quality, and betrays not any marks of acidity, being rather moderately acrid. There will be occasion to mention it more particularly in the subsequent chapter, as such a liberty can need no apology to any philosophical physician.

count the usual quantity of his other drinks, which may be taken immediately after it.

§ 58. As long as the patient shall grow worse, or only continue equally bad, the same medicines are to be repeated. But if on the third day (tho' it rarely happens so soon) or fourth, or fifth, the disease takes a more favourable turn; if the exasperation returns with less violence, the cough be less severe, the matter coughed up less bloody; if respiration becomes easier; the head be less affected; the tongue not quite so dry; if the high colour of the urine abates, and its quantity be increased, it may be sufficient then to keep the patient carefully to his regimen, and to give him a glyster every evening. The exasperation that occurs the fourth day is often the highest.

§ 59. This distemper is most commonly terminated and carried off by expectoration, and often by urine, which on the seventh, the ninth, or the eleventh day, and sometimes on the days between them, begins to let fall a plentiful sediment, or settling, of a pale red colour, and sometimes real *pus* or ripe matter. These discharges are succeeded by sweats, which are as serviceable then as they were injurious at the beginning of the disease.

§ 60. Some hours before these evacuations appear, there come on, and not seldom, some very alarming symptoms, such as great anguish; palpitations, some irregularity in the pulse; an increased oppression; convulsive motions (this being what is called the *crisis*, the height, or turn of the distemper) but they are no ways dangerous, provided they do not occasion any improper treatment. These symptoms depend on the morbid and purulent matter, which, being dislodged, circulates with the humours, and irritates different parts, until the discharge of it has fairly begun; after which all such symptoms disappear, and sleep generally ensues. However I cannot too strongly insist on the necessity of great prudence in such circumstances. Sometimes it is the weakness of the patient, and at other times convulsions, or some other symptoms, that terrify the by-standers. If, which is most generally the case, the absurd practice of directing particular remedies for such accidents take place, such as spirituous cordials, Venice-treacle, confections, castor and rue; the consequence is, that nature being disturbed in her operations, the *crisis* or turn is not effected; the matter, which should be discharged by stool, by urine, or by sweat, is not discharged out of the body, but is thrown upon some internal

nal or external part of it. Should it be expelled to some outward part, the danger indeed is less; and as soon as ever such a tumour appears, ripening poultices should be applied to bring it to a head, after which it should immediately be open.

§ 61. In order to prevent such unhappy consequences, great care must be taken, whenever such terrifying symptoms come on, (about the time of the *crisis*) to make no change in the diet, nor in the treatment of the patient; except in giving him the loosening glyster, No. 5, and applying every two hours a flannel, squeezed out of warm water which may cover all the belly, and in a manner go round the body behind the reins. The quantity of his drink may also be increased a little; and that of his nourishment lessened, as long as this high and violent state continues.

§ 62. I have not spoken of vomits or purges, as being directly contrary to the nature of this disease. Anodynes, or opiates, to procure sleep are also, in general, very improper. In a few cases, however, they may possibly be useful; but these cases are so very difficult to be sufficiently distinguished, that opiates should never be admitted in this disease, without the presence and advice of a physician. I have seen many patients, who have been thrown into an incurable hectic, by taking them improperly, when the disease is not received in a mortal degree, nor has been injudiciously treated, and proceeds in a benign regular manner, the patient may be called very well and safe by the fourteenth day; when he may, if he has an appetite, be put upon the diet of people who are recovering. But if he still retains an aversion to food; if his mouth is foul and furred, and he is sensible of some heaviness in his head, he should take the purging potion No. 11.

§ 63. Bleedings from the nose occur sometimes naturally in this disease, even after repeated bleedings by art; these are very benign and favourable, and are commonly attended with more ease and relief than artificial bleedings. Such voluntary discharges may sometimes be expected, when the patient is sensibly mended in many respects after the use of the lancet; and yet complains of a great pain in his head, accompanied with quick sparkling eyes, and a redness of the nose. Nothing should be done to stop these voluntary bleedings, since it would be very dangerous;

rous: For when nature has fulfilled her intention by them, they cease of themselves. At other times, but more rarely, the distemper is carried off by a natural purging, attended with a moderate pain, and the discharge of bilious matter.

§ 64. If the expectoration, or hawking up of matter, stops very suddenly, and is not speedily attended with some other evacuation, the oppression and anguish of the patient immediately return, and the danger is great and pressing. If the distemper, at this juncture, is not of many days standing; if the patient is a strong person; if he has not as yet been plentifully bled; if there be still some blood mixed with the humour he expectorates; or if the pulse be strong and hard, he should be bled immediately in the arm; and constantly receive the steam of hot water and vinegar by the mouth, and drink plentifully of the ptisan No. 2, something hotter than ordinary. But if his circumstances, after this suppression, are different from these just mentioned, instead of bleeding him, two blisters should be applied to the legs, and he should drink plentifully of the ptisan No. 12.

The causes which ofteneft produce this suppression of his expectoration are, 1, sharp and sudden cold air; 2, too hot a one; 3, over hot medicines; 4, excessive sweating; 5, a purge prematurely and injudiciously timed; and 6, some immoderate passion of the mind.

§ 65. When the sick has not been sufficiently bled, or not soon enough; and even sometimes, which I have seen, when he has been greatly weakened by excessive bleeding; so that the discharges by stool, urine, expectoration and perspiration have not been sufficiently made; when these discharges have been confused by some other causes, or the disease has been injudiciously treated; then the vessels that have been inflamed, do not unload themselves of the humours, which stuff up and oppress them: But there happens in the substance of the affected lung, the same circumstance we see daily occur on the surface of the body. If an inflammatory tumour or swelling does not disperse itself, and disappears insensibly, it forms an imposthume or abscess. Thus exactly also in the inflamed lung, if the inflammation is not dissipated, it forms an abscess, which in that part, is called a *vomica*; and the matter of that abscess, like the external ones, remains often long inclosed in its sack or bag, without bursting open its membrane or case, and discharging the matter it contains.

§ 66. If the inflammation was not very deeply seated in the inward substance of the diseased lung, but was extended to its surface, that is, very near the ribs, the sack will burst on the surface of the lung, and the matter contained in it must be discharged into the cavity, or hollowness of the breast, between the lung, the ribs, and the diaphragm or midriff, which is the membrane that divides the breast and the belly. But when the inflammation is considerably deeper, the imposthume bursts within side of the lung itself. If its orifice, or opening, is so small, that but little can get out at once; if the quantity of all the matter be inconsiderable, and the patient is at the same time pretty strong, he coughs up the matter, and is very sensibly relieved. But if this *vomica* be large, or if its orifice is wide, and it throws out a great quantity of matter at once; or if the patient is very weak, he dies the moment it bursts, and that sometimes when it is least expected. I have seen one patient so circumstanced expire, as he was conveying a spoonful of soup to his mouth; and another, while he was wiping his nose. There was no present symptom in either of these cases, whence a physician might suppose them likelier to die at that instant, than for some hours before. The *pus*, or matter, is commonly discharged through the mouth after death, and the bodies very soon become putrified.

§ 67. We call that *vomica* which is not burst, an *occult* or hidden, and that which is, an evident or open one. It is of considerable importance to treat exactly and clearly of this topic; as a great number of country people die of these imposthumes, even without a suspicion of the cause of their death. I had an instance of it some days since, in the school-master of a village. He had an occult and very considerable *vomica* in the left lung, which was the consequence of an inflammation of the breast, that had been treated improperly in the beginning. He seemed to me not likely to live twenty-four hours; and really died in the night, after inexpressible anguish.

§ 68. Whatever distemper is included within the breast of a living patient, is neither an object of the sight, nor touch; whence these *vomicas*, these inward tumours, are so often unknown, and indeed unsuspected. The evacuations that were necessary for the cure, or sometimes for the prevention, of them, have not taken place during the first fourteen days. At the end of this term, the patient, far from being cured, is not very considerably relieved;

lieved; but, on the contrary, the fever continues to be pretty high, with a pulse continually quick; in general soft and weak, though sometimes pretty hard, and often fluctuating, or, as it were, wavering. His breathing is still difficult and oppressed with small cold shudderings from time to time, an exasperation of the fever, flushed cheeks, dry lips, and thirst.

The increase of the symptoms declare, that *pus* or matter is thoroughly formed: The cough then becomes more continual, being exasperated by the least motion, or as soon as ever the patient has taken any nourishment. He can repose only on the side affected. It often happens indeed, that he cannot lie down at all, but is obliged to be set up all day; sometimes even without daring to lean a little upon his loins, for fear of increasing the cough and oppression. He is unable to sleep, has a continual fever, and his pulse frequently intermits.

The fever is not only heightened every evening, but the smallest quantity of food, the gentlest motion, a little coughing, the lightest agitation of the mind, a little more than usual heat in the chamber, soup either a little too strong, or a little too salt, increase the quickness of his pulse the moment they occur, or are given. He is quite restless, has some short attacks of the most terrible anguish, accompanied and succeeded by sweatings on his breast, and from his whole countenance. He sweats sometimes the whole night; his urine is reddish, now frothy, and at other times oily, as it were. Sudden flushings, hot as flames, rise into his whole visage. The greater number of the sick are commonly sensible of a most disagreeable taste in their mouth; some of old strong cheese; others of rotten eggs; and others again of stinking meat, and fall greatly away. The thirst of some is unquenchable, their mouths and lips are parched, their voice weak and hoarse, their eyes are hollow, with a kind of wildness in their looks. They have a general disgust to all food; and if they should ask for some particular nourishment without seeing it, they reject it the moment it is brought them; and their strength at length seems wholly exhausted.

Besides these symptoms, a little inflation, or *bloatedness*, as it were, is sometimes observed on the breast, towards the side affected; with an almost insensible change of colour. If the *vomica* be situated at the bottom of the affected lobe of the lungs, and in its internal part, that is nearly in the middle of the breast, some *puffiness* or light swelling

swelling may be perceived in some bodies, by gently pressing the pit of the stomach; especially when the patient coughs. In short, according to the observations of a German physician, if one strike the open hand on the breast, covered only with a shirt, it retains in the spot, which is directly opposite to the *vomica*, a flat heavy sound, as if one struck a piece of flesh; while in striking on the other side it gives a clear loud sound, as from a drum. I still doubt, however, whether this observation will generally hold true; and it would be hazardous to affirm there is no abscess in the breast, which does not return this heavy sound.

§ 69. When a *vomica* is formed, as long as it is not emptied, all the symptoms I have already enumerated increase, and the *vomica* grows in size: The whole side of the lung affected sometimes becomes a bag or sack of matter. The sound side is compressed, and the patient dies after dreadful anguish, with the lungs full of *pus*, and without having ever brought up any.

To avoid such fatal consequences, it is necessary to procure the rupture and discharge of this inward abscess, as soon as we are certain of its existence: And as it is safer it should break within the lobe affected, from whence it may be discharged by hawking up; than that it should burst and void itself into the cavity of the breast, for reasons I shall give hereafter, we must endeavour, that this rupture may be affected within the internal substance of the lungs.

§ 70. The most effectual methods to procure this are;
1, To make the patient continually receive, by his mouth, the vapour of warm water. 2, When by this means that part of the sack or abscess is softened, where we could wish the rupture of it to happen, the patient is to swallow a large quantity of the most emollient liquid; such as barley water, almond milk, light veal broth, or milk and water. By this means the stomach is kept always full: So that the resistance to the lungs being considerable on that side, the abscess and its contents will naturally be pressed towards the side of the wind pipe, as it will meet with less resistance there. This fulness of the stomach will also incline the patient to cough, which may concur to produce a good event. Hence, 3, we should endeavour to make the patient cough, by making him smell to some vinegar, or even to snuff up a little; or by injecting into his throat, by means of a small syringe or pipe, such as children

children make out of short pieces of elder boughs, a little water or vinegar. 4. He should be advised to bawl out aloud, to read loud, or to laugh heartily; all which means contribute to burst open the abscess, as well as those two following ones. 5. Let him take every two hours a soup laddle of the potion No. 8. 6. He should be put into a cart, or some other carriage; but not before he has drank plentifully of such liquors as I have just mentioned: After which the shaking and jolting in the carriage have sometimes immediately procured that rupture, or breaking of the bag or abscess, we wished for.

§ 71. Some years since I saw a country maid-servant, who was left in a languishing condition after an inflammation of the breast, without any person's suspecting her ailment. This woman being put into a cart, that was sent for a load of hay, one of the wheels run violently against a tree: She swooned away, and at the same time brought up a great quantity of digested matter. She continued to bring up more; during which I was informed of her case, and of the accident, which effectually cured her.

A *Swiss* officer, who served in *Piedmont*, had been in a languid state of health for some months, and returned home to set himself down as easily as he could, without conceiving any considerable hopes of recovery. Upon entering into his own country, by the way of *Mount Bernard*, and being obliged to go some paces on foot, he fell down, and remained in a swoon about a quarter of an hour; during which time he threw up a large quantity of matter, and found himself that moment very greatly relieved. I ordered him a proper diet, and suitable medicines, his health became perfectly established, and the preservation of his life was principally owing to this lucky fall.

Many persons afflicted with a *vomica*, faint away the very instant it breaks. Some sharp vinegar should be directly held to their nose. This small assistance is generally sufficient, where the bursting of it is not attended with such appearances as shew it to be mortal, in which case every application is insignificant.

§ 72. If the sick person was not extremely weak before the bursting of the abscess; if the matter was white, and well conditioned; if the fever abates after it; if the anguish, oppression, and sweats terminate; if the cough is less violent; if the patient is sensibly easier in his situation or posture; if he recovers his sleep and appetite; if

his usual strength returns, if the quantity he expectorates, or brings up, becomes daily and gradually less; and if his urine is apparently better, we may have room to hope that by the assistance of these remedies I shall immediately direct, he may be radically, completely cured.

§ 73. But if, on the contrary, when his strength is exhausted before the bursting of the abscess, when the matter is too thin and transparent, brown, green, yellow, bloody, and of an offensive smell; if the pulse continues quick and weak; if the patient's appetite, strength, and sleep, do not improve, there remains no hope of a cure, and the best medicines are ineffectual: Nevertheless we ought to make some trial of them.

§ 74. They consist of the following medicines and regulations. 1. Give every four hours a little barley, or rice-cream. 2. If the matter brought up is thick and glewy, so that it is very difficult to be loosened and discharged, give every two hours a soup ladle of the potion No. 8, and between the giving these two, let the patient take every half-hour a cup of the drink No. 13. 3. When the consistence of the matter is such, that there is no occasion for these medicines to promote the discharge of it, they must be omitted; though the same sort and quantity of food are to be continued; but with the addition of an equal quantity of milk; or, which will be still more beneficial, instead of this mixture, we should give an equal quantity of sweet milk, taken from a good cow, which in such a case, may compose the whole nourishment of the patient. 4. He should take four times a day, beginning early on the morning, and at the distance of two hours, a dose of the powder No. 14. diluted in a little water, or made into a *bolus*, or morsel, with a little syrup or honey. His common drink should be almond-emulsion, commonly called almond-milk, or barley water, or fresh water, with a fourth part milk. 5. He should air and exercise every day on horseback, or in a carriage, according as his strength and his circumstances will allow him. But of all sorts of exercise, that upon a trotting horse, is, beyond all comparison, the very best, and the easiest to be procured by every body, provided the disease be not too far advanced, since, in such a situation, any exercise, that was only a little violent, might prove pernicious.

§ 75. The multitude, who are generally illiterate, seldom consider any thing as a remedy, except they swallow it. They have but little confidence in *regimen*, or any assistance

assistance in the way of diet; and consider riding on horse-back as wholly useless to them. This is a dangerous mistake, of which I should be glad to undeceive them; since this assistance, which appears so insignificant to them, is probably the most effectual of any: It is that in fact, without which they can scarcely expect a cure, in the highest degrees of this disease: It is that which perhaps alone may recover them, provided they take no improper food. In brief, it is considered; and with reason, as the real specific for this disease.

§ 76. The influence of the air is of more importance in this disorder, than in any others; for which reason great care should be taken to procure the best, in the patient's chamber. For this purpose it should often be ventilated, or have an admission of fresh air, be sweetened from time to time, though very lightly, with a little good vinegar; and in the season it should be plentifully supplied with agreeable herbs, flowers and fruits. Should the sick be unfortunately situated, and confined in an unwholesome air, there can be but little prospect of curing him without altering it.

§ 77. Out of many persons affected with these disorders, some have been cured by taking nothing whatsoever but butter-milk; others by melons and cucumbers only; and others again by summer fruits of every sort. Nevertheless, as such cases are singular, and have been but few, I advise the patient to observe the method I have directed here, as the surest.

§ 78. It is sufficient if he have a stool once in two, or even in three days. Hence there is no reason for him, in this case, to accustom himself to glysters: They might excite a looseness, which may be very dangerous.

§ 79. When the discharge of the matter from the breast diminishes, and the patient is perceivably mended in every respect, it is a proof that the wound in the abscess is deterged, or clean, and that it is disposed to heal up gradually. If the suppuration, or discharge, continues in great quantity, if it seems but of an indifferent consistence, if the fever returns every evening, it may be apprehended, that the wound, instead of healing, may degenerate into an ulcer, which must prove a most embarrassing consequence. Under such a circumstance, the patient would fall into a confirmed hectic, and die after some months sickness.

§ 80. I am not acquainted with any better remedy, in such a dangerous case, than a perseverance in these al-

ready directed, and especially in moderate exercise on horseback. In some of them indeed recourse may be had to the sweet vapours of some vulnerary herbs in hot water, with a little oil of turpentine, as directed No. 15. I have seen them succeed; but the safest way is to consult a physician, who may examine and consider, if there is not some particular circumstance combined with the disease, that proves an obstacle to the cure of it. If the cough prevents the patient from sleeping, he may take in the evening two or three table spoonfuls of the prescription No. 16. in a glass of almond milk, or barley water.

§ 81. The very same causes which suddenly suppress the expectoration, in an inflammation of the breast, may also check the expectoration from a *vomica* already begun: In which circumstance the patient is speedily afflicted with an oppression and anguish, a fever, and evident feebleness. We should immediately endeavour to remove this stoppage, by the vapour of hot water; by giving a spoonful of the mixture No. 3. every hour; by a large quantity of the ptyfan No. 12. and by a proper degree of motion or exercise. As soon as ever the expectoration returns, the fever and other symptoms disappear. I have seen this suppression in strong habits quickly followed with an inflammation about the seat of the *vomica*, which has obliged me to bleed, after which the expectoration immediately returned.

§ 82. It happens sometimes that the *vomica* is entirely cleansed; the expectoration is entirely finished, or drained off, the patient seems well, and thinks himself completely cured: But soon after, the uneasiness, oppression, cough, and fever are renewed, because the membrane or bag of the *vomica* fills again: Again it empties itself, the patient expectorates for some days, and seems to recover. After some time, however, the same scene is repeated; and this vicissitude, or succession, of moderate, and of bad health, often continues for some months, and even some years. This happens when the *vomica* is emptied, and is gradually deterged; so that its membranes, or sides, touch or approach each other, but without cicatrizing or healing firmly; and then there drops or leaks in very gradually fresh matter. For a few days this seems no ways to incommode the patient; but as soon as a certain quantity is accumulated, he is visited again with some of the former symptoms, till another evacuation ensues. People thus circumstanced, in this disease, sometimes appear

pear to enjoy a tolerable share of health. It may be considered as a kind of internal issue, which empties and cleanses itself from time to time; pretty frequently in some constitutions, more slowly in others: and under which some may attain a good middling age. When it arrives however at a very considerable duration, it proves incurable. In its earliest state, it gives way sometimes to a milk diet, to riding on horseback, and to the medicine No. 14.

§ 83. Some may be surprized, that in treating of an abscess of the lungs, and of the hectic, which is a consequence of it, I say nothing of those remedies, commonly termed *balsamics*, and so frequently employed in them; for instance, turpentine, balsam of Peru, of Mecca, frankincense, mastich, myrrh, storax, and balsam of sulphur. I shall however say briefly here (because it is equally my design to destroy the prejudice of the people, in favour of improper medicines, and to establish the reputation of good ones) that I never in such cases made use of these medicines; because I am convinced, that their operation is generally hurtful in such cases; because I see them daily productive of real mischief; that they protract the cure, and often change a slight disorder into an incurable disease. They are incapable of perfect digestion, they obstruct the finest vessels of the lungs, whose obstructions we should endeavour to remove, and evidently occasion, except their dose be extremely small, heat and oppression. I have very often seen to a demonstration, that pills compounded of myrrh, turpentine and balsam of Peru, have, an hour after they were swallowed, occasioned a tumult and agitation in the pulse, high flushings, thirst and oppression. In short, it is demonstrable to every unprejudiced person, that these remedies, as they have been called, are truly prejudicial in this case; and I heartily wish people may be disabused with respect to them, and that they may lose that reputation so unhappily ascribed to them.

I know that many persons, very capable in other respects, daily make use of them in these distempers: Such however cannot fail of disusing them; as soon as they shall have observed their effects, abstracted from the virtues of the other medicines to which they add them, and which mitigate the danger of them. I saw a patient, whom a foreign surgeon, who lived at *Orléans*, attempted to cure of a hectic with melted bacon, which aggravated the disease. This advice seemed, and certainly was, absurd; never-

theless the balsamics ordered in such cases are probably not more digestible than fat bacon. The powder No. 14. possesses whatever these balsamics pretend to; it is attended with none of the inconveniences they produce; and has all the good qualities ascribed to them. Notwithstanding which, it must not be given while the inflammation exists, nor when it may revive again; and no other aliment should be mixed with the milk.

The famous medicine called the *Antibectic* * (*antibecticum poterii*) has not, any more than these balsamics, the virtues ascribed to it in such cases. I very often give it in some obstinate coughs to infants in their milk, and then it is very useful: But I have seldom seen it attended with considerable effects in grown persons; and in the present cases I should be fearful of its doing mischief.

§ 84. If the *vomica*, instead of breaking within the substance of the lungs affected, should break without it, the pus must be received into the cavity of the breast. We know when that has happened, by the sensation or feeling of the patient; who perceives an uncommon, a singular kind of movement, pretty generally accompanied with a fainting. The oppression and anguish cease at once, the fever abates, the cough however commonly continues, though with less violence, and without any expectoration. But this seeming amendment is of a short duration, since from the daily augmentation of the matter, and its becoming more acrid or sharp, the lungs become oppressed, irritated and eroded. The difficulty of breathing, heat, thirst, wakefulness, distaste, and deafness, return, with many other symptoms unnecessary to be enumerated, and especially with frequent sinkings and weakness. The patient should be confined to his *regimen*, to retard the increase of the disease as much as possible; notwithstanding no other effectual remedy remains, except that of opening the breast between two of the ribs, to discharge the matter, and to stop the disorder it occasions. This is called the operation for the *empyema*. I shall not describe it here,

* This medicine is composed of six ounces of the regulus of antimony, and three ounces of fine tin, calcined together by means of nitre; beat afterwards to an impalpable powder, the finer parts of which are obtained by the effusion of warm water, which, when sufficiently impregnated therewith, is poured off, and the particles taken up allowed to subside. It is said to be an excellent diaphoretic in hectic cases; but present practice neglects it. B.

as it should not be undertaken but by persons of capacity and experience, for whom this treatise was not intended. I would only observe, it is less painful than terrifying; and that if it is delayed too long, it proves useless, and the patient dies miserable.

§ 85. We may daily see external inflammations turn gangrenous, or mortify. The same thing occurs in the lungs, when the fever is excessive, the inflammation either in its own nature extremely violent, or raised to such a height by hot medicines. Intolerable anguish, extreme weakness, frequent faintings, coldness of the extremities, a livid and fetid thin humour brought up instead of concocted spitting, and sometimes blackish stripes on the breast, sufficiently distinguish this miserable state. I have smelt in one case of this kind, where the patient had been attacked with this disease (after a forced march on foot, having taken some wine with spices to force a sweat) his breath so horribly stinking, that his wife had many sinkings from attending him. When I saw him, I could discern neither pulse nor intellect, and ordered him nothing. He died an hour afterwards, about the beginning of the third hour.

§ 86. An inflammation may also become hard, when it forms what we call a *scirrhus*, which is a very hard tumour, indolent or unpainful. This is known to occur, when the disease is not terminated in any of those manners I have represented; and where, though the fever and the other symptoms disappear, the respiration, or breathing, remains always a little oppressed; the patient still retains a troublesome sensation in one side of his breast; and has from time to time a dry cough, which increases after exercise, and after eating. This malady is but seldom cured: though some persons attacked with it last many years, without any other considerable complaint. They should avoid all occasions of overheating themselves, which might readily produce a new inflammation about this tumour, the consequence of which would be highly dangerous.

§ 87. The best remedies against this disorder, and from which I have seen some good effects, are the medicated whey No. 17. and the pills No. 18. The patient may take twenty pills, and a pint and a half of the whey every morning for a long continuance, and receive inwardly, now and then, the vapour of hot water.

§ 88. Each lung, in a perfect state of health, touches the *Pleura*, the membrane that lines the inside of the breast; though it is not connected to it. But it often happens, after an inflammation of the breast, after a pleurisy, and in some other cases, that these two parts adhere closely to each other and are never afterwards separated. However this is scarcely to be considered as a disease; and remains commonly unknown, as the health is not impaired by it, and nothing is ever prescribed to remove it. Nevertheless, I have seen a few cases, in which this adhesion was manifestly prejudicial.

CHAP. V.

Of the PLEURISY.

The danger of heating remedies.—Of frequent or habitual pleurisies.—Of goats blood; the foot of a stale egg, and of the wormwood of the Alps, in pleurisies.

SECT. 89.

TH E Pleurisy, which is chiefly known by these four symptoms, a strong fever, a difficulty of breathing, a cough, and an acute pain about the breast; the pleurisy, I say, is not a different malady from the peripneumony, or inflammation of the breast, the subject of the preceding chapter; so that I have very little to say of it particularly, or apart.

§ 90. The cause of this disease then is exactly the same with that of the former; that is, an inflammation of the lungs; but an inflammation, that seems rather a little more external: the only considerable difference in the symptoms is, that the pleurisy is accompanied with a most acute pain under the ribs, and which is commonly termed a *stitch*. The pain is felt indifferently over every part of the breast; though most commonly about the sides, under the more fleshy parts of the breast, and ofteneft on the right side. The pain is greatly increased whenever the patient coughs or draws in the air in breathing; and hence a fear of increasing it, by making some patients forbear to cough or respire as much as they possibly can; and that aggravates the disease, by stopping the course of the blood in the lungs, which are soon overcharged with it. Hence the

the inflammation of this bowel becomes general ; the blood mounts up to the head ; the countenance looks deeply red, or as it were livid ; the patient becomes nearly suffocated, and falls into the state described § 47.

Sometimes the pain is so extremely violent, that if the cough is very urgent at the same time, and the sick cannot suppress or restrain it, they are seized with convulsions, of which I have seen many instances, but these occur almost always to women, though they are much less subject than men to this disease, and indeed to all inflammatory ones. It may be proper however to observe here, that if women should be attacked with it, during their monthly discharges, that circumstance should not prevent the repeated and necessary bleedings, nor occasion any alteration in the treatment of the disease. And hence it appears, that the pleurisy is really an inflammation of the lungs, accompanied with acute pain.

§ 91. I am sensible that sometimes an inflammation of the lungs is communicated also to that membrane, which lines the inside of the breast, and which is called the *Pleura* ; and from thence to the muscles, the fleshy parts, over and between the ribs. This however is not very frequently the case.

§ 92. Spring is commonly the season most productive of pleurisies ; in general there are few in summer : Notwithstanding that in the year 1762, there were a great many during the hottest season, which then was excessively so. The disease usually begins with a violent shivering, succeeded by considerable heat, with a cough, an oppression, and sometimes with a sensible straitning, or contraction, as it were, all over the breast ; and also with a head-ach, a redness of the cheeks, and with reachings to vomit. The stitch does not always happen at the very first onset ; often not till after several hours from the first complaint ; sometimes not before the second, or even the third day. Sometimes the patient feels two stitches, in different parts of the side ; though it seldom happens that they are equally sharp, and the lightest soon ceases. Sometimes also the stitch shifts its place, which promises well, if the part first attacked by it continues perfectly free from pain ; but it has a bad appearance, if, while the first is present, another also supervenes, and both continue. The pulse is usually very hard in this distemper ; but in the dreadful cases described § 47, and 90, it becomes soft and small. There often occurs

occurs at, or very quickly after, the invasion, such an expectoration, or hawking up, as happens in an inflammation of the breast; at other times there is not the least appearance of it, whence such are named Dry Pleurifies, which happen pretty often. Sometimes the sick cough but little, or not at all. They often lie more at ease upon the side affected, than on the sound one. The progress of this disease advances exactly like that described in the preceding chapter: For how can they differ considerably? and the treatment of both is the same. Large hæmorrhages, or bleedings from the nose, frequently happen, to the great relief of the patient; but sometimes such discharges consist of a kind of corrupted blood, when the patient is very ill, and these portend death.

§ 93. This distemper is often produced by drinking cold water, while a person is hot; from which cause it is sometimes so violent, as to kill the patient in three hours. A young man was found dead at the side of the spring, from which he had quenched his thirst: Neither indeed is it uncommon for pleurifies to prove mortal in three days.

Sometimes the stitch disappears, whence the patient complains less; but at the same time his countenance changes; he grows pale and sad; his eyes look dull and heavy, and his pulse grows feeble. This signifies a translation of the disease to the brain, a case which is almost constantly fatal.

There is no disease in which the critical symptoms are more violent, and more strongly marked, than in this. It is proper this should be known, as it may prevent or lessen our excessive terror. A perfect cure supervenes, sometimes, at the very moment when death was expected.

§ 94. This malady is one of the most common and the most destroying kind, as well from its own violent nature, as through the pernicious treatment of it in country places. That prejudice, which insists on curing all diseases by sweating, entirely regulates their conduct in treating a pleurisy; and as soon as a person is afflicted with a stitch, all the hot medicines are immediately set to work. This mortal error destroys more people than gun-powder, and it is by so much the more hurtful, as the distemper is of the most violent kind; and because, as there is commonly not a moment to be lost, the whole depends on the method immediately resorted to.

§ 95. The proper manner of treating this disease, is exactly the same in all respects with that of the peripneumony;

mony; because I again affirm, it is the very same disease. Hence the bleedings, the softning and diluting drinks, the steams, the glysters, the potion No. 8. and the emollient poultices are the real remedies. These last perhaps are still more effectual in the pleurisy, and therefore they should be continually applied over the very stitch.

The first bleeding, especially if there has been a considerable discharge, almost constantly abates the stitch, and often entirely removes it; though it more commonly returns, after an intermission of some hours, either in the same spot, or sometimes in another. The shifting of it is rather favourable, especially if the pain that was first felt under the breast, shifts into the shoulders, the back, the shoulder-blade, or the nape of the neck.

When the stitch is not at all abated, or only a little, or if, after having abated, it returns as violently as at first, and especially if it returns to the same spot, and the height of the other symptoms continue, bleeding must be repeated. But if a sensible attachment of the stitch continues, and if, though it returns, it should be in a smaller degree, and by intervals, or in these places I have mentioned above, if the quickness or the badness of the pulse, and all the other symptoms are sensibly diminished, this repeated bleeding may sometimes be omitted. Nevertheless, in a very strong subject, it seems rather prudent not to omit it, since in such circumstances, it can do no mischief, and a considerable hazard may sometimes be incurred by the omission. In very high and dangerous pleurisy, a frequent repetition of bleeding is necessary; except some impediment to it should arise from the particular constitution of the patient, or from his age, or some other circumstances.

If, from the beginning of the disease, the pulse is but a little quicker, and harder than in a healthy state; if it is not manifestly strong; if the head-ach and the stitch are so moderate as to prove supportable; if the cough is not too violent; if there is no sensible oppression or straitness, and the patients expectorate, or cough up, bleeding may be omitted.

With respect to the administering of other remedies, the same directions are to be exactly followed, which have been already given in the preceding chapter, to which the reader is referred from § 53 to 66.

§ 96. When the disease is not very acute and pressing, I have often cured it in a very few days by a single bleeding,

ing, and a large quantity of a tea or infusion of elder flowers, sweetened with honey. It is in some cases of this kind, that we often find the water *saltranc* succeed, with the addition of some honey, and even of oil: Though the drink I have just directed is considerably preferable. That drink which is compounded of equal quantities of wine and water, with the addition of much Venice-treacle, annually destroys a great number of people in the country.

§ 97. In those dry pleurifies, in which the stitch, the fever, and the head-ach are strong and violent, and where the pulse is very hard and very full, with an excessive dryness of the skin and of the tongue, bleeding should be frequently repeated, and at small intervals from each other. This method frequently cures the disease effectually, without using any other evacuation.

§ 98. The pleurisy terminates, like any other inward inflammation, either by some evacuation, by an abscess in a mortification, or in a schirrosity or hard tumour; and it often leaves adhesions in the breast.

The gangrene or mortification sometimes appears on the third day, without having been preceded by very vehement pains. In such cases the dead body often looks very black, especially in the parts near the seat of the disease: And in such the more superstitious ascribe it to some supernatural cause, or draw some unhappy presage from it, with respect to those who are yet unattacked by it. This appearance however is purely a natural consequence, quite simple, and cannot be otherwise; and the hot regimen and medicines are the most prevailing causes of it. I have seen it thus circumstanced in a man in the flower of his age, who had taken Venice-treacle in cherry-water, and the ingredients of *saltranc* infused in wine.

§ 99. *Vomicae* are sometimes the consequence of pleurifies, but their particular situation disposes them more to break * outwardly, which is the most frequent cause of an *empyema*, § 84. “ To prevent this, it is highly proper to apply, at the first invasion of the disease, to the spot where the pain chiefly rages, a small plaister, which may exactly fit it; since if the pleurisy should terminate in an abscess or imposthume, the purulent matter will be determined to that side.

* That is, into the cavity of the breast, rather than within the substance of the lungs.

“ As soon then as it is foreseen that an abscess is forming (see § 68) we should erode, by a light caustic, the place where it is expected, and as soon as it is removed, care should be taken to promote suppuration there. By this means we may entertain a reasonable hope, that the mass of matter will inclose its course to that spot, where it will meet with the least resistance, and be discharged from thence. For this heap of matter is often accumulated between the *pleura* and the parts which adhere to it.”

This is the advice of a very great physician *; but I must inform the reader, there are many cases in which it can be of no service: neither ought it to be attempted, but by persons of undoubted abilities.

With regard to the schirrosity, or hardness, and to the circumstances of adhesions, I can add nothing to what I have said in § 86, and 87.

§ 100. It has been observed that some persons, who have been once attacked by this disease, are often liable to relapses of it, especially such as drink hard. I knew one man, who reckoned up his pleurisy by dozens. A few bleedings, at certain proper intervals, might prevent these frequent returns of it, which joined to their excessive drinking, make them languid and stupid, in the very flower of their age. They generally fall into some species of an asthma, and from that into a dropsy, which proves the melancholy, though not an improper conclusion of their lives. Such as confine themselves to some proper precautions, may also prevent these frequent returns of this disease, even without bleeding, by a temperate regimen, by abstaining, from time to time, from eating flesh, and drinking wine; at which time they should drink whey, or some of those diet-drinks No. 1, 2, 4, and by bathing their legs sometimes in warm water, especially in those seasons when this disease is the most likely to return.

§ 101. Two medicines greatly esteemed in this disease among the peasantry, and even extolled by some physicians, are the blood of a wild he-goat, and the foot in an egg †. I do not contest the cure or recovery of many

* We suppose, the celebrated Baron Van Swieten is here meant.

† A small black substance, which may be seen in a rotten egg, supposed to be of a poisonous quality.

persons who have taken these remedies ; notwithstanding it is not less true, that both of them, as well as the egg in which the foot is taken, are dangerous : For which reason it is prudent, at least, never to make use of them ; as there is great probability they may do a little mischief, and a certainty that they can do no good. The *Genipi*, or wormwood * of the Alps, has also acquired great reputation in this disease, and occasioned many disputes between some very zealous ecclesiastics, and a justly celebrated physician. It seems not difficult however to ascertain the proper use of it. This plant is a powerful bitter ; it heats and excites sweat : It seems clear that, from such consequences, it should never be employed in a pleurisy, while the vessels are full, the pulse hard, the fever high, and the blood inflamed. In all such circumstances it must aggravate the disease ; but towards the conclusion of it, when the vessels are considerably emptied, the blood is diluted, and the fever abated, it may then be recurred to ; but with a constant † recollection that it is hot, and not to be employed without reflection and prudence.

* This species of wormwood is described in Lewis's *Materia Medica*.

† The same objection has been brought against the use of the Seneka in these diseases, but it would appear with little foundation, for Dr Tennent gave the medicine in the inflammatory stage of the disorder, and with great success ; so also did Messrs. Lemery, Du Hamel, Jussiu, and Bouvart in the memoirs of the French academy of Sciences. The last gentleman was agreeably disappointed in not finding it increase the fever as he had apprehended. It promotes all the evacuations, but relieves most when it occasions expectoration. It has been given in substance, tincture, extract, and decoction, the latter probably the best form. It has been made with different proportions. Dr. Tennent prescribed three oz. of the bruised root to be boiled in a quart of water, till near one half was consumed. Of this, three spoonfuls were to be taken after bleeding, and repeated every six hours. But this seems too large a proportion. Probably two oz. in two pints and a half, to the consumption of a pint and one fourth, would be found a better one.

The advantage of this remedy is, that it is more effectual than the common ones, and renders superfluous the great effusion of blood which is commonly prescribed, and so much debilitates the patient's constitution.

C H A P.

C H A P. VI.

Of the Diseases of the Throat.

Of their proper treatment—Of the formation of an abscess there.—Of swelled ears, from the obstruction of the parotid and maxillary glands.—Of the epidemic and putrid diseases of the throat, which prevailed, in 1761, at Lusanne.

S E C T. 102.

TH E throat is subject to many diseases: One of the most frequent, and the most dangerous, is that inflammation of it commonly called a quinsy. This in effect is a distemper of the same nature with an inflammation of the breast; but as it occurs in a different part, the symptoms, of course, are very different. They also vary, not a very little, according to the different parts of the throat which are inflamed.

§ 103. The general symptoms of an inflammation of the throat are, the shivering, the subsequent heat, the fever, the head-ach, red high coloured urine, a considerable difficulty, and sometimes even an impossibility, of swallowing any thing whatever. But if the nearest parts to the *glottis*, that is of the entrance into the windpipe, or conduit through which we breathe, are attacked, breathing becomes excessively difficult; the patient is sensible of extreme anguish, and great approaches to suffocation; the disease is then extended to the *glottis*, to the body of the windpipe, and even to the substance of the lungs, whence it becomes speedily fatal.

The inflammation of the other parts is attended with less danger; and this danger becomes still less, as the disease is more extended to the outward and superficial parts. When the inflammation is general, and seizes all the internal parts of the throat, and particularly the tonsils or almonds, as they are called, the *woula*, or process of the palate, and the *basis*, or remotest deep part of the tongue, it is one of the most dreadful and dangerous maladies. The face is then swelled up and inflamed; the whole inside of the throat is in the same condition; the patient can get nothing down; he breathes with a pain and anguish, which concur, with a stuffing or obstruction in his brains, to throw him into a kind of furious *delirium*, or raving. His tongue is bloated up, and is extended out of his

his mouth; his nostrils are dilated, as though it were to assist him in his breathing; the whole neck, even to the beginning of the breast, is excessively tumified or swelled up; the pulse is very quick, very weak, and often intermits; the miserable patient is deprived of all his strength, and commonly dies the second or third day. Very fortunately this kind or degree of it, which I have often seen in *Languedoc*, happens very rarely in *Switzerland*, where the disease is less violent; and where I have only seen people die of it, in consequence of its being perniciously treated, or by reason of some accidental circumstances, which were foreign to the disease itself. Of the multitude of patients I have attended in this disorder, I have known but one to fail under it, whose case I shall mention towards the close of this chapter.

§ 104. Sometimes the disease shifts from the internal to the external parts; the skin of the neck and breast grows very red, and becomes painful, but the patient finds himself better.

At other times the disorder quits the throat; but is transferred to the brain, or upon the lungs. Both these translations of it are mortal, when the best advice and assistance cannot be immediately procured; and it must be acknowledged, that even the best are often ineffectual.

§ 105. The most usual kind of this disease is that which affects only the tonsils (the almonds) and the palate, or rather its process, commonly called *the Palate*. It generally first invades one of the tonsils, which becomes enlarged, red and painful, and does not allow the afflicted to swallow, but with great pain. Sometimes the disorder is confined to one side, but most commonly it is extended to the *uvula*, (the palate), from whence it is extended to the other tonsil. If it be of a mild kind, the tonsil first affected is generally better, when the second is attacked. Whenever they are both affected at once, the pain and the anguish of the patient are very considerable; he cannot swallow but with great difficulty and complaint, and the torment of this is so vehement, that I have seen women affected with convulsions, as often as they endeavoured to swallow their spittle, or any other liquid. They continue, even for several hours sometimes, unable to take any thing whatever; all the upper inward part of the mouth, the bottom of the palate, and the descending

ascending part of the tongue become lightly red; or inflamed.

A considerable proportion of persons under this disease swallow liquids more difficulty than solids; by reason that liquids require a greater action of some part of the muscles, in order to their being properly directed into their conduit or channel. The deglutition (the swallowing) of the spittle is attended with still more uneasiness than that of other liquids, because it is a little more thick and viscid, and flows down with less ease. This difficulty of swallowing, joined to the quantity thence accumulated, produces that almost continual hawking up, which oppresses some patients so much the more, as the inside of their cheeks, their whole tongue, and their lips are often galled, and even flayed as it were. This also prevents their sleeping, which however seems no considerable evil, sleep being *sometimes* but of little service in diseases attended with a fever; and I have often seen those, who thought their throats almost entirely well in the evening, and yet found them very bad after some hours sleep.

The fever, in this species of the disease, is sometimes very high: and the shivering often endures for many hours. It is succeeded by considerable heat, and a violent head ach, which yet is sometimes attended with a drowsiness. The fever is commonly pretty high in the evening, though sometimes but inconsiderable, and by the morning perhaps there is none at all.

A light invasion of this disease of the throat often precedes the shivering; though most commonly it does not become manifest till after it, and at the same time when the heat comes on.

The neck is sometimes a little inflated, or puffed up; and many of the sick complain of a pretty smart pain in the ear of that side, which is most affected. I have but very seldom observed that they had it in both.

§ 106. The inflammation either disappears by degrees, or an abscess is formed in the part which was chiefly affected. It has never happened, at least within my knowledge, that this sort of the disease, prudently treated, has ever terminated either in a mortification, or a scirrhus: But I have been a witness to either of these supervening, when sweating was extorted in the beginning of it, by hot medicines.

It is also very rare to meet with those highly dangerous translations of this disease upon the lungs, such as are de-

scribed in that species of it from § 103, to 104. It is true indeed it does not occur more frequently, even in that species, whenever the disease is thrown out upon the more external parts.

§ 107. The treatment of the quinsy, as well as of all other inflammatory diseases, is the same with that of an inflammation of the breast.

The sick is immediately to be put upon a regimen; and, in that sort described § 103, bleeding must be repeated four or five times within a few hours; and sometimes there is a necessity to recur still oftener to it. When it assaults the patient in the most vehement degree, all medicines, all means, are very generally ineffectual; they should be tried however. We should give as much as can be taken of the drinks, No. 2, and 4. But as the quantity they are able to swallow is often very inconsiderable, the glyster, No. 5. should be repeated every three hours, and their legs should be put into a bath of warm water, thrice a day.

§ 108. Cupping glasses, with scarification, applied about the neck, after bleeding twice or thrice, have often been experienced to be highly useful. In the most desperate cases, when the neck is excessively swelled, one or two deep incisions made with a razor, on this external tumour, have sometimes saved a patient's life.

§ 109. In that kind, and those circumstances, of this disease described § 105, we must have very frequent recourse to bleeding; and it should never be omitted when the pulse is very perceivably hard and full. It is of the utmost consequence to do it instantaneously, since it is the only means to prevent the abscess, which forms very readily, if bleeding has been neglected, only for a few hours. Sometimes it is necessary to repeat it a second time, but very rarely a third.

This disease is frequently so gentle and mild, as to be cured without bleeding, by the means of much good management. But as many as are not masters of their own time, nor in such an easy situation, as to be properly attended, ought, without the least hesitation, to be bled directly, which is sometimes sufficient to remove the complaint; especially if, after bleeding, the patient drinks plentifully of the pilsan No. 2.

In this light degree of the disease, it may suffice to bathe the legs, and to receive a glyster, once a day; the first to be used in the morning, and the last in the evening.

ing. Besides the general remedies against inflammations, a few particular ones, calculated only for this disease, may be applied in each kind or degree of it. The best are, first the emollient poultices, No. 9. laid over the whole neck *. Some have highly extolled the application of swallows nests in this disease, and though I make no objection to it, I think it certainly less efficacious than any of those which I direct.

2. Of the gargarisms (No. 19.) a great variety may be prepared, of pretty much the same properties, and of equal efficacy. Those I direct here are what have succeeded best with me, and they are very simple †.

3. The steam of hot water, as directed § 55, should be repeated five or six times a day; a poultice should be constantly kept on, and often renewed; and the patient should frequently gargle.

There are some persons, besides children, who cannot gargle themselves: And, in fact, the pain occasioned by it makes it the more difficult. In such a case, instead of garling, the same gargarism (No. 19.) may be injected with a small syringe. The injection reaches farther than gargling, and often causes the patient to hawk up a considerable quantity of glary matter (which has grown still thicker towards the bottom of the throat) to his sensible relief. This injection should be often repeated. The little hollowed pipes of elder-wood, which all the children in the country can make, may be conveniently employed for this purpose. The patient should breathe out, rather than inspire, during the injection.

§ 110. Whenever the disease terminates without supuration, the fever, the head-ach, the heat in the throat, and the pain in swallowing, begin to abate from the fourth day, sometimes from the third, often only from the fifth;

* The English avail themselves considerably, in this disease, of a mixture composed of equal parts of salad oil, and the spirit of Sal Ammoniac; or of oil and spirit of hartshorn, as a liniment and application round the neck. This remedy deserves, perhaps, the first place amongst local applications against the inflammatory quinsy. E. L.

† Dr. Pringle is apprehensive of some ill effects from acids in gargarisms (which is probably from their supposed repelling property) and prefers a decoction of figs in milk and water, to which he adds a small quantity of spirit of Sal Ammoniac. E. L.

and from such a period that abatement increases at a great rate; so that at the end of two, three, or four days, on the sixth, seventh, or eighth, the patient is entirely well. Some few however continue to feel a light degree of pain, and that only on one side, four or five days longer, but without a fever, or any considerable uneasiness.

§ 111. Sometimes the fever and the other symptoms abate, after the bleeding and other remedies, without any subsequent amendment in the throat, or any signs of supuration. In such cases, we must chiefly persist in the gargarisms and the steams; and where an experienced and dexterous surgeon can be procured, it were proper he should scarify the inflamed tonsils. These discharge, in such cases, a moderate quantity of blood; and this evacuation relieves, very readily, as many as make use of it.

§ 112. If the inflammation is no-ways disposed to disperse, so that an abscess is forming, which almost ever happens, if it has not been obviated at the invasion of the disease; then the symptoms attending the fever continue, though raging a little less after the fourth day: The throat continues red, but of a less florid and lively redness: A pain also continues, though less acute, accompanied sometimes with pulsations, and at other times entirely without any, of which it is proper to take notice: The pulse commonly grows a little softer; and, on the fifth or sixth day, and sometimes sooner, the abscess is ready to break. This may be discovered by the appearance of a small white and soft tumour, when the mouth is open, which commonly appears about the centre or middle of the inflammation. It bursts of itself; or, should it not, it must be opened. This is effected by strongly securing a lancet to one end of a small stick or handle, and enveloping, or wrapping up the whole blade of it, except the point and the length of one fourth or a third of an inch, in some folds of soft linen; after which the abscess is pierced with the point of this lancet. The instant it is opened, the mouth is filled with the discharge of a quantity of pus, of the most intolerable savour and smell. The patient should gargle himself after the discharge of it with the deterfive, or cleansing gargarism No. 19. It is surprising sometimes to see the quantity of matter discharged from this imposthumation. In general there is but one, though sometimes I have seen two of them.

§ 113. It happens and not seldom, that the matter is not collected exactly in the place where the inflammation appeared, but in some less exposed and less visible place: Whence a facility of swallowing is almost entirely restored, the fever abates, the patient sleeps; he imagines he is cured, and that no inconvenience remains but such as ordinarily occurs in the earliest stage of recovery. A person, who is neither a physician nor a surgeon, may easily deceive himself, when in this state. But the following signs may enable him to discover that there is an abscess, viz. A certain inquietude and general uneasiness, a pain throughout the mouth; some shiverings from time to time, frequently sharp, but short and transient heat: A pulse moderately soft, but not in a natural state, a sensation of thickness and heaviness in the tongue, small white eruptions on the gums, on the inside of the cheek, on the inside and outside of the lips, and a disagreeable taste and odour.

§ 114. In such cases milk or warm water should frequently be retained in the mouth, the vapour of hot water should be conveyed into it, and emollient cataplasms may be applied about the neck. All these means concur to the softening and breaking of the abscess. The finger may also be introduced to feel for its situation, and, when discovered, the surgeon may easily open it. I happened once to break one under my finger, without making the least effort to do it. Warm water may be injected pretty forcibly, either by the mouth or the nostrils: This sometimes occasions a kind of cough, or certain efforts which tend to break it. I have seen this happen even from laughing. As to the rest, the patient should not be too anxious or uneasy about the event. I never saw a single instance of a person's dying of a quinsy of this kind, after the suppuration is truly effected; neither has it happened perhaps after the time it is forming for suppuration.

§ 115. The glary matter with which the throat is overcharged, and the very inflammation of that part, which, from its irritation, produces the same effect as the introduction of a finger into it, occasions some patients to complain of incessant propensities to vomit. We must be upon our guard here, and not suppose that this heart sickness, as some have called it, results from a disorder of or a load within the stomach, and that it requires a vomit for its removal. The giving one here would often prove a very unfortunate mistake. It might, in a high inflam-

mation,

mation, further aggravate it, or we might be obliged (even during the operation of the vomit) to bleed, in order to lessen the violence of the inflammation. Such imprudence, with its bad consequences, often leaves the patient, even after the disease is cured, in a state of langour and weakness for a considerable time. Nevertheless, there are some particular disorders of the throat, attended with a fever, in which a vomit may be prudently given. But this can only be, when there is no inflammation, or after it is dispersed; and there still remains some putrid matter in the first passages. Of such cases I shall speak hereafter.

§ 116. We often see in *Switzerland* a disorder different from these of the throat, of which we have just treated; though like these, attended with a difficulty of swallowing. It is termed in French the *Oreillons* and often the *Qurlles*, or swelled ears. It is an overfullness and obstruction of those glands and their tubes, which are to furnish the *saliva* or spittle; and particularly of the two large glands which lie between the ear and the jaw, which are called the *Parotides*; and of two under the jaw, called the *Maxillares*. All these being considerably swelled in this disease, do not only produce a great difficulty of swallowing, but also prevent the mouth from opening; as an attempt to it is attended with violent pain. Young children are much more liable to this disease than grown persons. Being seldom attended with a fever, there is no occasion for medicines; It is sufficient to defend the parts affected from the external air; to apply some proper poultice over them; to lessen the quantity of their food considerably, denying them flesh and wine; but indulging them plentifully in some light warm liquid, to dilute their humours and restore perspiration. I cured myself of this disorder in 1754, by drinking nothing, for four days, but balm tea, to which I added one fourth part milk, and a

* In diseases of the throat, which have been preceded by such excesses in food or strong drink, as occur too often in many countries, when the patient has very strong reachings to vomit, and the tongue is moist at the same time, we should not hesitate, after appeasing the first symptoms of the inflammation (by sufficient bleedings, &c.) to assist the efforts of nature, and to give a small dose of Tartar emeric, dissolved in some spoonfuls of water. This remedy, in this case, promotes the dispersion of the inflammation beyond any other. E. L.

little

little bread. The same *regimen* has often cured me of other light complaints of the throat.

§ 117. In the spring of 1761, there were an astonishing number of persons attacked with disorders of the throat, of two different kinds. Some of them were seized with that common sort which I have already described. Without adding any thing more particularly, in respect to this species, it happened frequently to grown persons, who were perfectly cured by the method already recited. The other species, on which I shall be more particular in this place (because I know they have abounded in some villages, and were very fatal) invaded adults, or grown persons also, but especially children, from the age of one year, and even under that, to the age of twelve or thirteen.

The first symptoms were the same with those of the common quinsy, such as the shivering, the ensuing heat or fever, dejection, and a complaint of the throat: but the following symptoms distinguished these from the common inflammatory quinseys.

1. The sick had often something of a cough, and a little oppression.
2. The pulse was quicker, but less hard, and less strong than generally happens in diseases of the throat.
3. The patients were afflicted with a sharp, stinging, and dry heat, and with great restlessness.
4. They spit less than is usual in a common quinsy; and their tongues were extremely dry.
5. Though they had some pain in swallowing, this was not their principal complaint, and they could drink sufficiently.
6. The swelling and redness of the tonsils, of the palate and of its process, were not considerable; but the parotid and maxillary glands, and especially the former, being extremely swelled and inflamed, the pain they chiefly complained of was this outward one.
7. When the disease proved considerably dangerous, the whole neck swelled; and sometimes even the veins, which return the blood from the brain, being overladen as it were, the sick had some degree of drowsiness, and of a *delirium*, or raving.
8. The paroxysms, or returns of the fever, were considerably irregular.
9. The urine appeared to be less inflamed than in other diseases of the throat.

10. Bleeding and other medicines did not relieve them, as soon as in the other kind; and the disease itself continued a longer time.

11. It did not terminate in a suppuration, like other quinseys, but sometimes the tonsils were ulcerated.

12. * Almost every child, and indeed a great many of the grown persons assaulted with this disease, threw out, either on the first day, or on some succeeding one, within the first six days, a certain efflorescence, or eruptions, resembling the measles considerably in some, but of a less lively colour, and without any elevation or rising above the skin. It appeared first in the face, next in the arms, and descended to the legs, thighs and trunk; disappearing gradually at the end of the two or three days, in the same order it had observed in breaking out. A few others (I have seen but five instances of it) suffered the most grievous symptoms before the eruption; and threw out the genuine *purpura*, or white miliary eruption.

13. As soon as these efflorescences or eruptions appeared, the sick generally found themselves better. That last mentioned continued four, five, or six days, and frequently went off by sweats. Such as had not these ebullitions, which was the case of many adults, were not cured without very plentiful sweats towards the termination of the disease; those which occurred at the invasion of it being certainly unprofitable, and always hurtful.

14. I have seen some patients, in whom the complaint of the throat disappeared entirely, without either eruptions or sweats: But such still remained in very great inquietude and anguish, with a quick and small pulse. I ordered them a sudorific drink, which being succeeded by the eruption, or by sweating, they found themselves sensibly relieved.

15. But whether the sick had, or had not, these external redresses or eruptions, every one of them parted with their cuticle or scarf skin, which fell off in large scales from the whole surface of the body: So great was the acrimony or sharpness of that matter, which was to be discharged through the skin.

* This seems to have been the same kind of quinsey, of which Drs. Huxham, Fothergill, and others wrote, though under different appellations. See Huxham on fevers; Dissertation on a sore throat, p. 276.

16. A

16. A great number suffered a singular alteration in their voice, different from that which occurs in common quinsys, the insides of their nostrils being extremely dry.

17. The sick recovered with more difficulty after this, than after the common quinsys: And if they were negligent or irregular, during their recovery; particularly, if they exposed themselves too soon to the cold, a relapse ensued, or some different symptoms; such as a stuffing with oppression, a swelling of the belly, windy swellings in different parts, weakness, loathings, ulcerations behind the ears, and something of a cough and hoarseness.

18. I have been sent for to children, and also to some young folks, who, at the end of several weeks, had been taken with a general inflammation of the whole body, attended with great oppression, and a considerable abatement of their urine, which was also high coloured and turbid, or without separation. They seemed also in a very singular state of indifference, or disregard, with respect to any object or circumstance. I recovered every one of them entirely by blisters, and the powder No. 25. The first operation of this medicine was to vomit them: To this succeeded a discharge by urine, and at last very plentiful sweating, which completed the cure. Two patients only of a bad constitution, who were a little rickety, and disposed to glandular schirrhosity or knottiness, relapsed and died, after being recovered of the disease itself for some days.

§ 118. I have bled some adult persons, and made use of the cooling regimen, as long as there was an evident inflammation: It was necessary after this to unload the first passages; and at last to excite moderate sweats. The same powders No. 25. have often effected both these discharges, and with entire success. In other cases I have made use of Ipecacuanha, as directed No. 35.

In some subjects there did not appear any inflammatory symptom; and the distemper resulted solely from a load of putrid matter in the first passages. Some patients also discharged worms. In such cases I never bleed; but the vomit had an excellent effect, at the very onset of the disease, it produced a perceivable abatement of all the symptoms; sweating ensued very kindly and naturally, and the patient recovered entirely a few hours after.

§ 119. There were some places, in which no symptom or character of inflammation appeared; and in which

it

it was necessary to omit bleeding which was attended with bad consequences.

I never directed infants to be bled. After opening the first passages, blisters and diluting drinks proved their only remedies. A simple infusion of elder flowers, and those of the lime-tree, has done great service to those who drank plentifully of it.

§ 120. I am sensible that in many villages a great number of persons have died, with a prodigious inflation, or swelling of the neck. Some have also died in the city and among others a young woman of twenty years old, who had taken nothing but hot sweating medicines and red wine, and died the fourth day, with violent suffocations, and a large discharge of blood from the nose. Of the great number I have seen in person, only two died. One was a little girl of ten months old; she had an efflorescence, which very suddenly disappeared: At this time I was called in; but the humour had retreated to the breast, and rendered her death inevitable. The other was a strong youth from sixteen to seventeen years old, whose sudden attack from the disease manifested, from the very beginning, a violent degree of it. Nevertheless, the symptoms subsiding, and the fever nearly terminating, the sweats which approached would probably have saved him. But he would not suffer them to have their course, continually stripping himself quite naked. The inflammation was immediately repelled upon the lungs, and destroyed him within the space of thirty hours. I never saw a person die with so very dry a skin. The vomit affected him very little upwards, and brought on a purging. His own bad conduct seems to have been the occasion of his death, and may this serve as one example of it.

§ 121. I chose to expatiate on this disease, as it may happen to reach other places, where it may be useful to have been apprized of its marks, and of its treatment, which agrees as much with that of putrid fevers, of which I shall speak hereafter, as with that of the inflammatory diseases I have already considered: Since in some subjects the complaint of the throat has evidently been a symptom of a putrid fever, rather than of the chiefly apparent disease, a quinsy.

I reserve some other interesting reflections on this disease, for the second edition of my *Treatise on Fevers*; and the editor at Paris has very well observed, that it has some relation to the gangrenous sore throat, which has
been

been epidemical these twenty years past in many parts of Europe.

§ 122. Disorders of the throat, are, with respect to particular persons, an habitual disease, returning every year, and sometimes oftener than once a year. They may be prevented by the same means, which I have directed for the preservation from habitual pleurisies § 100; and by defending the head and the neck from the cold; especially after being heated by hunting, or any violent exercise, or even by singing long and loud, which may be considered as an extraordinary exercise of some of the parts affected in this disease.

CHAP. VII.

Of Colds.

Different prejudices concerning colds.—The danger of drinking much hot water, and of strong spirituous liquors, &c.—Means for strengthening and curing persons very subject to colds.

SECT. 123.

THERE are many erroneous prejudices, with regard to colds, all of which may be attended with pernicious consequences. The first is, that a cold is never dangerous; an error which daily destroys the lives of many. I have already complained of it for many years past; and I have since beheld a multitude of such examples of it, as have but too sufficiently warranted my complaints.

No person however, it is certain, dies merely of a cold as long as it is nothing but a cold simply; but when, from inattention and neglect, it is thrown upon, and occasions distempers of the breast, it may, and often does prove mortal. *Colds destroy more than plagues*, was the answer of a very sagacious and experienced physician to one of his friends, who, being asked how he was in health, replied, "Very well, I have nothing but a cold."

A second erroneous prejudice is, that colds require no means, no medicines, and that they last the longer for being nursed, or tampered with. The last article may be true indeed, with respect to the method in which the person affected with them treats them; but the principle itself is false. Colds, like other disorders, have their proper

proper remedies ; and are removed with more or less facility, as they are conducted better or worse.

§ 124. A third mistake is, that they are not only considered as not dangerous, but are even supposed wholesome too. Doubtless a man had better have a cold than a more grievous disease ; though it must be still better to have neither of them. The most that can reasonably be said and admitted on this point is, that when a checked, or an obstructed perspiration becomes the cause of a distemper, it is fortunate that it produces rather a cold than any very dreadful disease, which it frequently does : Though it were to be wished, that neither the cause, nor its effect existed. A cold constantly produces some disorder or defect in the functions of some part or parts of the body, and thus becomes the cause of a disease. It is indeed a real disorder itself, and which, when in a violent degree, makes a very perceivable assault upon our whole machine. Colds, with their defluxions, considerably weaken the breast, and sooner or later considerably impair the health. Persons subject to frequent colds are never robust or strong ; they often sink into languid disorders ; and a frequent aptitude to take cold is a proof, that their perspiration may be easily checked and restrained ; whence the lungs become oppressed and obstructed, which must always be attended with considerable danger.

§ 125. We may be convinced of the weakness and fallacy of these prejudices, by considering attentively the nature of colds ; which are nothing else than the very diseases already described in the three preceding chapters, though in their greatest degree only.

A cold in truth is almost constantly an inflammatory disease, a light inflammation of the lungs, or of the throat, of the membrane or very thin skin, which lines the nostrils, and the inside of certain cavities in the bones of the cheeks and forehead. These cavities communicate with the nose, in such a manner, that when one part of this membrane is affected with an inflammation, it is easily communicated to the other parts.

§ 126. It is scarcely necessary to describe the symptoms of a cold, and it may be sufficient to remark, 1. That their chief cause is the same with that, which most commonly produces the diseases already treated of, that is, an obstructed perspiration, and a blood somewhat inflamed. 2. That whenever these diseases affect great numbers, many colds prevail at the same time. 3. That the symptoms

which

which manifest a violent cold, greatly resemble those which precede or usher in these diseases. People are rarely attacked by great cold, without a shivering and a fever; which last sometimes continues for many days. There is a cough, a dry cough, for some time; after which some expectoration ensues, which allays the cough, and lightens the oppression; at which time the cold may be said to be maturated, or ripe. There are pretty often slight stitches, but unfixed or flying about, with a little complaint of the throat. When the nostrils happen to be the seat of the disorder, which is then very improperly termed a cold of the brain, it is often attended with a vehement head-ach; which sometimes depends on an irritation of the membrane, that lines the cavities in the bone of the forehead, or the maxillary sinusses, that is, the cavities in the jaws. At first the running from the nose is very clear, thin and sharp; afterwards, in proportion to the abatement of the inflammation, it becomes thicker, and the consistence and colour of it resemble those of what others cough up. The smell, the taste, and the appetite are commonly impaired by it.

§ 127. Colds seem to be of no certain duration or continuance. Those of the head or brain generally last but a few days, of the breast longer. Some colds nevertheless terminate in four or five days. If they extend beyond this term they prove really hurtful. 1. Because the violence of the cough disorders the whole machine; and particularly, by forcing up the blood to the head. 2. By depriving the person afflicted of his usual sleep, which is almost constantly diminished by it. 3. By impairing the appetite, and confusing the digestion, which is unavoidably lessened by it. 4. By weakening the very lungs, by the continual agitations from coughing; whence all the humours being gradually determined towards them, as the weakest part, a continual cough subsists. Hence also they become overcharged with humours, which grow viscid there, the respiration is overloaded and oppressed, a slow fever appears, nutrition almost ceases, the patient becomes very weak, sinks into a wasting, an obstinate wakefulness and anguish, and often dies in a short time. 5. By reason that the fever, which almost constantly accompanies great cold, concurs to wear the body down.

§ 128. Wherefore, since a cold is a disease of the same kind with quinsies, peripneumonies, and inflammations of

of the breast, it ought to be treated in the same manner. If it is a violent one, blood should be taken from the arm, which may considerably shorten its duration; and this becomes most essentially necessary, whenever the patient is of a sanguineous ruddy complexion, abounds with blood, and has a strong cough, and great head-ach. The drinks No. 1, 2, 3, 4, should be very plentifully used. It is advantageous to bathe the feet in warm water every night at going to bed*. In a word, if the patient is put into a regimen, the cure is very speedily affected.

§ 129. The disorder indeed, however, is often so very slight, that it may be thought to require very little, if any medical treatment, and may be easily cured without physic, by abstaining from flesh, eggs, broth, and wine; from all food that is sharp, fat and heavy, and by dieting upon bread, pulse, fruit, and water; particularly by eating little or no supper, and drinking, if thirsty, a simple ptisan of barley, or an infusion of elder-flowers, with the addition of a third or fourth part of milk. Bathing the feet, and the powder No. 20, contribute to dispose the patient to sleep. Five tea-cups of an infusion of the red, or wild poppy leaves, may also be ventured on safely.

§ 130. When the fever, heat and inflammation wholly disappear; when the patient has kept to his regimen for some days, and his blood is well diluted, if the cough and want of sleep still continues, he may take in the evening a dose of storax pill, or of Venice-treacle with elder-flower water, after bathing his feet. These remedies by stilling the cough, and restoring perspiration, frequently cure the cold in the space of one night. I confess at the same time, I have seen bad consequences from such opiates, when given too early in the complaint. It is also necessary, when they are given, that the patient should have supped but very moderately, and that his supper should be digested.

§ 131. An immense number of remedies are cried up for the cure of colds; such as ptisans of apples or pippins, of liquorice, of dry raisins, of figs, of borage, of ground-ivy, of *veronica* or speedwell, of hyssop, of net-

* It frequently happens, that the bathings alone remove the head-ach, and the cough too, by relaxing the lower parts, and the entire surface of the body. If the patient is costive, he should receive glysters of warm water, in which some bran has been boiled, with the addition of a little common soap or butter.

tles, &c. &c. I have no design to depreciate them, as all of them may possibly be useful; but unfortunately, those who have seen any particular one of them succeed in one case, readily conclude it to be the most excellent of them all, which is a dangerous error, because no one case is a sufficient foundation to decide upon; which besides none are qualified to do, who have not often seen a great number of such cases, and who do not so attentively observe the effects of different medicines, as to determine on those which most frequently agree with the disorder, and which, in my judgment, are those I have just enumerated. I have known a tea, or infusion of cherry stalks, which is not a disagreeable drink, to cure a very inveterate cold.

§ 132. In colds of the head or brain, the steam of warm water alone, or that in which elder-flowers, or some other mild aromatic herbs have been boiled, commonly afford a pretty speedy relief. These are also serviceable in colds fallen on the breast. See § 55.

It has been a practice, though of no very long standing, to give the fat of a whale in these cases; but this is a very crude indigestible kind of fat, and such oily medicines seldom agree with colds. Besides, this whale's fat is very disagreeable and rancid, that is rank; so that it were better to forbear using it: I have sometimes seen ill effects from it, and rarely any good ones.

§ 133. Such persons as abate nothing of the usual quantity of their food, when seized with a cold, and who swallow down large quantities of hot water, ruin their health. Their digestion ceases; the cough begins to affect the stomach, without ceasing to afflict the breast; and they incur a chance of sinking into the condition described § 127, No. 4.

Burned brandy and spiced wine are very pernicious in the beginning of colds, and the omission of them must be a very prudent omission. If any good effects have ever been known to attend the use of them, it has been towards the going off of the cold; when the disorder maintained his ground, solely from the weakness of the patient. Whenever this is the case, there is not the least room for further relaxation, but the powders No. 14. should be taken every day in a little wine; and should the humours seem likely to be thrown upon the lungs, blisters ought to be applied to the fleshy parts of the legs.

§ 134. Drams, or *Liqueurs*, (as they are called in *French*) agree so very little in this last state, that frequently

ly a very small quantity of them revives a cold that was just expiring. There really are some persons who never drink them without taking cold, which is not to be wondered at, as they occasion a light inflammation in the breast, which is equivalent to a cold or distillation.

Nevertheless, people in this disorder should not expose themselves to violent cold weather, if there is a possibility of avoiding it; though they should equally guard too against excessive heat. Those who inclose themselves in very hot rooms, never get quite cured; and how is it possible they should be cured in such a situation? Such rooms abstracted from the danger of coming out of them, produce colds in the same manner that drams do, by producing a light inflammation in the breast.

§ 135. Persons subject to frequent colds, which habits are sometimes termed *fluxionary*, or liable to distillations, imagine they ought to keep themselves very hot. This is an error which thoroughly destroys their health. Such a disposition to take cold arises from two causes, either because their perspiration is easily impaired, or sometimes from the weakness of the stomach or the lungs, which require particular remedies. When the complaint arises from the perspiration's being easily disturbed and lessened, the hotter they keep themselves, the more they sweat, and increase their complaint the more. This incessantly warm air lets down, and weakens the whole machine, and more particularly the lungs, where the humours finding less resistance, are continually derived, and are accumulated there. The skin, being constantly bathed in a small sweat, becomes relaxed, soft, and incapable of completing its functions; from which failure the slightest cause produces a total obstruction of perspiration; and a multitude of languid disorders ensue.

These patients thus circumstanced, redouble their precautions against the cold, or even the coolness of the air, while their utmost cautions are but so many effectual means to weaken their health; and the more certainly, as their dread of the free air necessarily subjects them to a sedentary life, which increases all their symptoms; while the hot drinks they indulge in, complete their severity. There is but one method to cure people thus situated; that is, by accustoming them gradually to the air; to keep them out of hot chambers; to lessen their cloathing by degrees, to make them sleep cool, and to let them eat or drink nothing but what is cold, ice itself being wholesome

some in their drink : To make them use much exercise ; and, finally, if the disorder be inveterate, to give them for a considerable time the powder No. 14, and make them use the cold bath. This method succeeds equally too with those, in whom the disease originally depended on a weakness of the stomach, or of the lungs : And in fact, at the end of a certain period, these three causes are always combined. Some persons who have been subject for many years to catch cold throughout the winter, and who, during that season, never went out, and drank every thing warm, have been evidently the better, during the winter of 1761, and 1762, for the directions I have given here. They now walk out every day, drink their liquids cold, and by this means entirely escape colds, and enjoy perfect health.

§ 136. It is more customary indeed in town, than in the country, to have different physical compositions in the mouth. I am not for excluding this habit, though I think nothing is so efficacious as juice of liquorice, and provided a sufficient dose be taken, it affords certain relief. I have taken an ounce and an half in one day, and have felt the good consequences of it very remarkably.

C H A P. VIII.

Of Diseases of the TEETH.

S E C T. 137.

THE diseases of the teeth, which are sometimes so tedious and so violent, as to cause obstinate wakefulness, a considerable degree of fever, raving, inflammations, abscesses, rottenness of the bones, convulsions and faintings, depend on three principal causes. 1. On a *Caries* or rottenness of the teeth. 2. On an inflammation of the nerves of the teeth or of the membrane which invests and covers them, and which affects the membrane of the gums. 3. A cold humour or defluxion that is determined to the teeth, and to their nerves and membrane.

§ 138. In the first of these cases, the *caries* having eat down to, and exposed the naked nerve, the air, food, and drink irritate, or as it were, sting it ; and this irritation is attended with pain more or less violent. Every thing

that increases the motion or action of the affected part, as exercise, heat or food, will be attended with the same consequence.

When the tooth is greatly decayed, there is no other cure besides that by extracting it, without which the pain continues, the breath becomes very offensive, the gum is eat down, the other teeth, and sometimes even the jaw-bone, are infected with the rottenness: Besides that, it prevents the use of the other teeth, which are infested with a kind of tartarous matter, and decay.

But when the disorder is less considerable, the progress of it may sometimes be restrained, by burning the tooth with a hot iron, or by filling it with lead, if it is fitted to receive and to retain it. Different corroding liquids are sometimes used on these occasions, *aqua fortis* itself, and spirit of vitriol; but such applications are highly dangerous, and ought to be excluded. When the patients, from dread, reject the operations just mentioned, a little oil of cloves may be applied, by introducing a small pellet of cotton, dipt in it, to the rotten hollow tooth, which often affords considerable ease and respite. Some make use of a tincture of opium, or laudanum, after the same manner; and indeed these two medicines may be used together in equal quantities. I have often succeeded with *Hoffman's* mineral anodyne liquor, which seemed indeed for a few moments to increase the pain; but ease generally ensues after spitting a little time. A gargarism made of the herb *argentina*; that is, silver-weed or wild tansey, in water, frequently appeases the pain that results from a *caries* of the teeth: And in such cases many people have found themselves at ease, under a constant use of it. It certainly is an application that cannot hurt, and is even beneficial to the gums. Others have been relieved by rubbing their faces over with honey.

§ 139. The second cause is the inflammation of the nerve within the substance, or of the membrane on the outside of the tooth. This is discovered by the patient's temperament, age, and manner of living. They who are young, sanguine, who heat themselves much, whether by labour, by their food, their drink, by sitting up late, or by any other excess; they who have been accustomed to any discharge or eruption of blood, whether natural or artificial, and who cease to have them as usual, are much exposed to the tooth-ach from this cause.

This

This pain, or rather torment, if in an acute degree, commonly happens very suddenly, and often after some heating cause. The pulse is strong and full, the countenance considerably red, the mouth extremely hot: There is often a pretty high fever, and a violent head-ach. The gums, or some part of them, become inflamed, swelled, and sometimes an abscess appears. At other times the humours throw themselves upon the more external part, the cheek swells, and the pain abates. When the cheek swells, but without any diminution of the pain, it then becomes an augmentation, but no essential change of the disorder.

§ 140. In this species of the disease, we must have recourse to the general method of treating inflammatory disorders, and direct bleeding, which often produces immediate ease, if performed early. After bleeding, the patient should gargle with barley water, or milk and water, and apply an emollient cataplasm to the cheek. If an abscess or little imposthume appears, the suppuration or ripening of it is to be promoted, by holding continually in the mouth some hot milk, or figs boiled in some milk; and as soon as ever it becomes ripe, it should be opened, which may be done easily, and without any pain. The disorder, when depending on this cause, is sometimes not so violent, but of a longer duration, and returns whenever the patient heats himself, when he goes to bed, and when he eats any heating food, or drinks wine or coffee. In this case he should be bled, without which his other medicines will have little effect; and he should bathe his feet in warm water for some evenings successively, taking one dose of the powder No. 20. Entire abstinence from wine and meat, especially at night, has cured several persons of inveterate and obstinate maladies of the teeth.

In this species of tooth-ach, all hot remedies are pernicious, and it often happens that opium, Venice-treacle, and storax pills, are so far from producing the relief expected from them, that they have aggravated the pain.

§ 141. When the disease arises from a cold distillation, or humour, tending to these parts, it is commonly (though equally painful) attended with less violent symptoms. The pulse is neither strong, full, nor quick; the mouth is less heated, and less swelled. In such cases the afflicted should be purged with the powder No. 21, which has sometimes perfectly cured very obstinate complaints of this

fort. After purging they should make use of the diet-drink of the woods No. 22. This has cured tooth-achs, which have baffled other attempts for many years; but it must be added, this drink would be hurtful in the disease from a different cause. Blisters to the nape of the neck or elsewhere *, it matters not greatly where, have often extraordinary good effects, by diverting the humour, and restoring a complete perspiration. In short, in this species we may employ, not only with safety, but with success (especially after due purging) pills of storax, opium, and Venice treacle. Acrid sharp remedies, such as hard-spun tobacco, root of pellitory of Spain, &c. by exciting much spitting, discharge part of the humour which causes the disease, and hence diminish the pain. The smoke of tobacco also succeeds now and then in this disorder, whether this happens from the discharge of the rheum or spittle it occasions, or whether it is owing to any anodyne efficacy of this plant, in which it resembles opium.

§ 142. As this last cause is often the consequence of a weakness in the stomach, it daily happens that we see some people, whose disorder from this cause is augmented, in proportion as they indulge in a cooling, refreshing way of living. The increase of the disorder disposes them to increase the dose of what they mistake for its remedy, in proportion to which their pain only increases. There is a necessity that such persons should alter this method, and make use of such medicines as are proper to strengthen the stomach, and to restore perspiration. The powder No. 14, has often produced the best consequences, when I have ordered it in these cases; and it never fails to dissipate the tooth-ach very speedily, which returns periodically at stated days and hours. I have also cured some persons who never drank wine, by advising them to the use of it.

§ 143. But besides the diseases of the teeth, that are owing to these principal causes, which are the most common ones, there are some very tedious and most tormenting disorders of them, that are occasioned by a general

* A small blister behind the ear of the affected side, or both ears, has very often removed the pain, when from a defluxion. Burning in the ear is another celebrated remedy for this disorder, but this perhaps acts from the terror and surprise that it occasions.

acrimony, or great sharpness, of the mass of blood, and which are never cured by any other medicines but such as are proper to correct that acrimony. When it is of a scorbutic nature, the wild horse-radish (pepperwort) water-cresses, brooklime, sorrel, and wood-sorrel, correct and cure it. If it is of a different nature, it requires different remedies. But very particular details do not come within the plan of this work. As the malady is of the chronical or tedious kind, it allows time to consider and consult more particularly about it.

The rheumatism and the gout are sometimes transferred to the teeth, and give rise to the most excruciating pains, which must be treated like the diseases from which they arise.

§ 144. From what has been said on this disorder, the reader will discern, in what that imaginary oddness may consist, which has been ascribed to it, from the same application relieving one person in it, and not affording the least relief to another. Now the plain reason of this is, that these applications are always directed, without an exact knowledge of the particular cause of the disease, in different subjects and circumstances, whence the pain from a rotten tooth is treated like that from an inflammation; that from an inflammation, like the pain from a cold humour or fluxion; and this last like a pain caused by a scorbutic acrimony: So that the disappointment is not in the least surprizing. Perhaps physicians themselves do not always attend distinctly enough to the nature of each particular disorder; and even when they do, they content themselves with directing some of the less potent medicines, which may be inadequate to accomplish the necessary effect. If the distemper truly be of an inflammatory disposition, bleeding is indispensable to the cure.

It happens in fact, with regard to the diseases of the teeth, as well as to all other diseases, that they arise from different causes; and if these causes are not opposed by medicines suited to them, the disease, far from being cured, is aggravated.

I have cured violent tooth-achs of the lower jaw, by applying a plaister of meal, the white of an egg, brandy and mastich, at the corner of that jaw, over the spot where the pulsation of the artery may be perceived: And I have also mitigated the most excruciating pains of the head, by applying the same plaister upon the temporal artery.

C H A P. IX.

Of the APOPLEXY.

*Of a sanguine Apoplexy.—Of a serous or watery apoplexy.
Means to prevent relapsing into them.*

SECT. 145.

EVERY person has some idea of the disease called an *Apoplexy*, which is a sudden privation or loss of all sense, and of all voluntary motion; the pulse at the same time being kept up, but respiration or breathing being oppressed. I shall treat of this disease only in a brief manner, as it is not common in our country villages, and as I have expatiated on it in a different manner in a letter to Dr. Hallet, published in 1761.

§ 146. This disease is generally distinguished into two kinds, the sanguineous and serous apoplexy. Each of them results from an overfulness of the blood vessels of the brain, which presses upon, and prevents or impairs the functions of the nerves. The whole difference between these two species consists in this, that the sanguineous apoplexy prevails among strong robust persons, who have a rich, heavy, thick and inflammable blood, and that in a large quantity, in which circumstance it becomes a genuine inflammatory distemper. The serous, or humoral apoplexy invades persons of a less robust constitution, whose blood is more dilute or watery, or rather viscid, or lightly gelatinous, than heavy or rich, whose vessels are in a more relaxed state, and who abound more in other humours than in red blood.

§ 147. When the first kind of this disease exists in its most violent degree, it is then sometimes called an *Apoplectic Stroke*, or *Thundering Apoplexy*, which kills in a moment or instantaneously, and admits of no remedies. When the assault is less violent, and we find the patient with a strong full and raised pulse, his visage red and bloated, and his neck swelled up, with an oppressed and loud hoarse respiration, being sensible of nothing, and capable of no other motions, except some efforts to vomit, the case is not always equally desperate. We must therefore immediately,

1. Entirely uncover the patient's head, covering the rest of his body but very lightly, procure him instantly very fresh free air, and leave his neck quite unbound and open.

2. His

2. His head should be placed as high as may be, with his feet hanging down.

3. He must lose from twelve to sixteen ounces of blood, from a free open orifice in the arm.

The strength or violence with which the blood flows out, should determine the surgeon to take a few ounces more or less. It should be repeated to the third or fourth time, within the space of three or four hours, if the symptoms seem to require it, either in the arm or in the foot.

4. A glyster should be given of a decoction of the first emollient opening herbs that can be got, with four spoonfuls of oil, and one spoonful of salt: And this should be repeated every three hours.

5. If it is possible, he should force himself to swallow water plentifully, in each pot of which three drachms of nitre are to be dissolved.

6. As soon as the height and violence of the pulse abates, when his breathing becomes less oppressed and difficult, and his countenance less inflamed, he should take the decoction No. 23; or if it cannot be got ready in time, he should take three quarters of an ounce of cream of tartar, and drink whey plentifully after it. This medicine succeeded extremely well with me in a case where I could not readily procure any other.

7. He should abstain from all strong liquor, wine distilled spirits, whether inwardly or by outward application, and should even avoid * smelling them.

8. The patient should be stirred, moved, or even touched, as little as possible; in a word, every thing must be avoided that creates the least agitation. This advice, I am sensible, is directly opposite to the common practice; notwithstanding which, it is founded in reason, approved by experience, and absolutely necessary. In fact the whole evil results from the blood being forced up with too much force, and in too great a quantity, to the brain; which being thence in a state of compression, prevents every movement and every influence of the nerves. In order, therefore, to re-establish these movements, the brain must be unloaded, by diminishing the force of the blood. But strong liquors, wines, spirits, volatile salts, all agitation and frictions, augment it; and by that very means,

* I have been very authentically assured of the death of a hale man, which happened in the very act of pouring out a large quantity of distilled spirits, by gallons or bucketfuls, from one vessel into another.

increase the load, the embarrassment of the brain, and thus heighten the disease itself; whereas, on the contrary, every thing that calms the circulation, contributes to recal sensation and voluntary motion the sooner.

9. Strong ligatures should be made about the thighs under the ham: By this means the blood is prevented in its ascent from the legs, and less is carried up to the head.

If the patient seems gradually, and in proportion as he takes proper medicines, to advance into a less violent state, there may be some hopes. But if he rather grows worse after his earliest evacuations, the case is desperate.

§ 148. When nature and art effect his recovery, his senses return, though there frequently remains a little *delirium* or wandering for some time; and frequently a paralytic defect, more or less, of the tongue, the arm, the leg, and the muscles of the same side of the face. This palsy sometimes goes off gradually, by the help of cooling purgatives from time to time, and a diet that is but very moderately and lightly nourishing. All hot medicines are extremely hurtful in this case, and may open the way to a repeated attack. A vomit might be even fatal, and has been more than once so. It should be absolutely forbidden; nor should we even promote, by draughts of warm water, the efforts of the patient to vomit. They do not in the least depend on any humour or mass in the stomach, but on the oppression and embarrassment of the brain; and the more considerable such efforts are, the more such oppression is increased, because as long as they continue, the blood cannot return from the head, by which means the brain remains overcharged.

§ 149. The other species of apoplexy is attended with the like symptoms, excepting the pulse not being so high nor strong; the countenance being also less red, sometimes even pale; the breathing seems less oppressed; and sometimes the sick have a great facility to vomit, and discharge more upwards.

As this kind of disorder attacks persons who abound less in blood, who are less strong, and less heated or inflamed, bleeding is not often at all necessary; at least the repetition of it is scarcely ever so: And should the pulse have but a small fullness, and not the least unnatural hardness, bleeding might even be pernicious.

1. The patient however should be placed as was directed in the former mode of this disease; though it seems not equally necessary here.

2. He

2. He should receive a glyster, but without oil, with double the quantity of salt, and a bit of soap of the size of a small egg; or with four or five sprigs of hedge-hyslop. It may be repeated twice a-day.

3. He should be purged with the powder, No. 21*.

4. His common drink may be a strong infusion of leaves of balm.

5. The purge should be repeated the third day.

6. Blisters should immediately be applied to the fleshy part of the legs, or between the shoulder-blades †.

7. Should nature seem disposed to relieve herself by sweatings, it should be encouraged; and I have often known an infusion of the *carduus benedictus*, or blessed thistle, produce the effect very successfully. If this method be entered upon, the sweat ought to be kept up (without stirring if possible) for many days. It has then sometimes happened, that at the end of nine days the patient has been totally freed from the palsy, which commonly succeeds this species of the apoplexy, just as it does the other.

* Vomits which are so pernicious in the sanguineous apoplexy where the patient's countenance and eyes are inflamed, and which are also dangerous or useless, when a person has been very moderate in his meals, or is weakened by age or other circumstances, and whose stomach is far from being overloaded with aliment, are nevertheless very proper for gross feeders, who are accustomed to exceed at table, who have indigestions, and a mass of viscid glary humours in their stomach; more especially, if such a one has a little while before indulged himself excessively, whence he has vomitted without any other evident cause, or at least had very strong *nauseas* or loathings. In brief, vomits are the true specific for apoplexies, occasioned by any narcotic or stupifying poisons, the pernicious effects of which cease the moment the persons so poisoned vomit them up. An attentive consideration of what has occurred to the patient before his seizure; his small natural propensity to this disorder, and great and incessant loathings, render it manifest, whether it has been caused by such poisons, or poisonous excesses. In these two last cases, a double dose of Tartar-emetic should be dissolved in a goblet or cup of water, of which the patient should immediately take a large spoonful; which should be repeated every quarter of an hour, till it operates.

† These blisters may be preceded by cupping with scarification on the nape of the neck. This remedy, often used by the antient physicians, but too little practised in France, is one of the most speedy, and not the least efficacious applications in both sanguine and serous apoplexies.

§ 150. Persons who have been attacked with either kinds of this disorder, are liable to subsequent ones, each of which is more dangerous than that preceding : Whence an endeavour to obviate or prevent such relapses, becomes of the utmost importance. This is to be affected in each sort by a very exact, and rather severe diet, even to diminishing the usual quantity of the patient's food ; the most essential precaution to be observed by any who have been once assaulted with it, being entirely to leave off suppers. Indeed those who have been once attacked with the *first* the *sanguineous apoplexies*, should be still more exact, more upon their guard, than the others. They should deny themselves whatever is rich and juicy, hot or aromatic, sharp wine, distilled liquors and coffee. They should chiefly confine themselves to garden-stuff, fruits and acids ; such should eat but little flesh, and only those called white ; taking every week two or three doses of the powder No. 24, in a morning fasting, in a glass of water. They should be purged twice or thrice a-year with the draught No. 23 ; use daily exercise, avoid very hot rooms, and the violent heat of the sun. They should go to bed by times, rise early, never lie in bed above eight hours : And if it is observed that their blood increases considerably, and has a tendency towards the head, they should be bled without hesitation, and for some time confine themselves entirely to a thin and low regimen, without taking any solid food. In these circumstances, warm bathings are pernicious. In the other, the serous apoplexy, instead of purging with No. 23, the patient should take the purge, No. 21.

§ 151. The same means, that are proper to prevent a relapse, might also obviate or keep off a primary or first assault, if employed in time : For notwithstanding it may happen very suddenly, yet this disease foreshows itself many weeks, sometimes many months, nay even years beforehand, by vertigos, heaviness of the head, small defects of the tongue or speech, short and momentary palsies, sometimes of one, sometimes of another part ; sometimes by loathings and reachings to vomit, without supposing any obstructions or load in the first passages, or any other cause in the stomach, or the adjoining parts. There happens also some particular change in the looks and visage not easily to be described ; sharp and quick pains about the region of the heart ; an abatement of the strength, without any discernible cause of it. Besides, there are still some
other

other signs, which signify the ascent of the humours too much to the head, and shew that the functions of the brain are embarrassed.

Some persons are liable to certain symptoms and appearances, which arise from the same cause as an apoplexy; and which indeed may be considered as very light benign apoplexies, of which they sustain many attacks, and yet without any considerable annoyance of their health. The blood, all at once, as it were, rushes up to their heads; they appear heedless or blundering, and have sometimes dis gusts and *nauseas*, and yet without any abatement of their understanding, their senses, or motion of any kind. Tranquillity of mind and body, once bleeding, and a few glysters, usually carry it off soon after its invasion. The returns of it may be prevented by the regimen, directed § 150, and especially by a frequent use of the powder, No. 24. At the long run, however, one of these attacks commonly degenerates into a mortal apoplexy; though this may be retarded for a very long time by an exact regimen, and by avoiding all strong commotions of the mind, but especially that of anger or violent rage.

C H A P. X.

Of the violent influence, or strokes of the Sun.

Of morbid strokes of the Sun.

SECT. 152.

THIS appellation is applied to those disorders, which arise from too violent an influence of the heat of the sun, immediately upon the head, and which, in one word, may be termed *insolation*.

If we consider that wood, stone and metals, when long exposed to the sun, become very hot, and that even in temperate climates, to such a degree, that they can scarcely be touched without a sensation or burning, we may easily conceive the danger a person undergoes, in having his head exposed to the same degree of heat. The blood vessels grow dry, the blood itself condensed or thickened, and a real inflammation is formed, which has proved mortal in a very little time. It was this distemper (a Stroke of the Sun) which killed *Manasses* the husband of *Judith*. For as he was among the labourers who bound up the sheaves in the fields, the heat struck upon his head, and he

‘ he was taken ill ; he went to bed and he died.’ The signs which precede and attend this disease are being exposed in a place where the sun shines forth with great force and ardour ; a violent head-ach, attended with a very hot and extremely dry skin, the eyes are also dry and red, being neither able to remain open, nor yet to bear the light ; and sometimes there is a kind of continual and involuntary motion in the eye-lid ; while some degree of relief is perceivable from the application of any cooling liquor. It often happens that some cannot possibly sleep ; and at other times they have a great drowsiness, but interrupted with violent awakenings : There is a very strong fever, a great faintness, and a total disrelish and loathing. Sometimes the patient is very thirsty, and at other times not at all ; and the skin of his face often looks as though it were burnt.

§ 153. People may be affected with the disease from this cause, at two different seasons of the year ; that is, either in the spring, or during the very raging heats ; but their events are very different. Country people and labourers are but little liable to the former. It chiefly affects the inhabitants of cities, and delicate persons, who have used very little labours in the winter, and abound with superfluous humours. If, thus circumstanced, they expose themselves to the sun, as even in the spring he attains a considerable force ; and, by the course of life they have led, their humours are already much disposed to amount to the head ; while the coolness of the soil, especially when it has rained, prevents their feet from being so easily warmed ; the power of the sun acts upon their head, like a blister, attracting a great quantity of humours to it. This produces tormenting pains of the head, frequently attended with quick and violent shootings, and with pains in the eyes, notwithstanding this degree of the malady is seldom dangerous. Country people, and even such inhabitants of cities and towns as have not forbore to exercise themselves in winter, have no sort of dread of these strokes of the sun, in the spring of the year. Its summer strokes are much more vehement and troublesome, and assault labourers and travellers, who are for a long time exposed to the fervour of it. Then it is that the disease is aggravated to its highest pitch, those who are thus struck often dying upon the spot. In the hot climates this cause destroys many in the very streets, and makes dreadful havock among armies on the march, and at sieges.

Some

Some tragical effects of it, on such occasions, are seen even in temperate countries. After having marched a whole day in the sun, a man shall fall into a lethargy, and die within some hours, with the symptoms of raving madness. I have seen a tyler, in a very hot day, complaining to his comrade of a violent pain in his head, which increased almost every moment; and at the very instant he purposed to retire out of the sun he sunk down dead, and fell down from the house he was slating. This same cause produces very often in the country some most dangerous phrensies, which are called there hot or burning fevers. Every year furnishes but too many of them.

§ 154. The vehemence of the sun is still more dangerous to those who venture to sleep exposed to it. Two mowers who fell asleep on a haycock, being wakened by some others, immediately on waking staggered, and, pronouncing a few incoherent unmeaning words, died. When the violence of the wine and that of the sun are combined, they kill very suddenly; nor is there a single year in which peasants are not found dead on the high roads, who being drunk endeavoured to lie down in some corner, where they perished by an apoplexy, from the heat of the sun and of strong drink. Those of them who escape so speedy and premature a death, are subject for the remainder of their lives to chronical or tedious head-achs, and to suffer some little disorder and confusion in their ideas. I have seen some cases, when, after violent head-achs of some days continuance, the disease has been transferred to the eyelids, which continued a long time red and distended, so that they could not be kept asunder or open. It has also been known that some persons have been struck by the sun into a delirium or raving, without a fever, and without complaining of a head-ach. Sometimes a *gutta serena* has been its consequence; and it is very common to see people, whose long continuance under the strong light and influence of the sun, has made such an impression upon the eyes, as presents them with different bodies flying about in the air, which distract and confuse their sight.

A man of forty-two years of age, having been exposed for several hours to the violent heat of the sun, with a very small cap or bonnet, and having passed the following night in the open air, was attacked the next day with a most severe head-ach, a burning fever, reachings to vomit, great anguish, red and sparkling eyes. Notwithstanding the
best

best assistance of several physicians, he became phrenetic on the fifth day, and died on the ninth. Suppurated matter was discharged from his mouth, one of his nostrils, and his right ear, a few hours before his death; upon dissection a small abscess was found within the scull; and the whole brain, as well as all the membranes inclosing it, were entirely corrupted.

§ 155. In very young children, who are not or never should be exposed for any long time to such excessive heat, (and whom a slight cause will often affect) this malady discovers itself by a heavy deep drowsiness, which lasts for several days, also by incessant ravings mingled with rage and terror, much the same as when they are affected with violent fear: And sometimes by convulsive twitchings, by head-achs which returned at certain periods, and continual vomitings. I have seen children, who, after a stroke of the sun, have been harrassed a long time with a little cough.

§ 156. Old men, who often expose themselves imprudently to the sun, are little apprized of all the danger they incur by it. A certain person, who purposely sunned himself for a considerable time, in the clear day of an intermitting tertian fever, underwent the assault of an apoplexy, which carried him off the following day. And even when the disease may not be so speedy and violent, yet this custom (in hot weather) certainly disposes to an apoplexy, and to disorders of the head. One of the slightest effects of much solar heat upon the head is, to cause a defluxion from the brain, a swelling of the glands of the neck, and a dryness of the eyes, which sometimes continues for a considerable term after it.

§ 157. The effect of too much culinary or common fire, is of the same quality with that of the sun. A man who fell asleep with his head directly opposite, and probably very near to the fire, went off in an apoplexy during his nap.

§ 158. The action of too violent a sun is not only pernicious, when it falls upon the head, but it is also hurtful to other parts; and those who continue long exposed to it, though their heads should not be affected, experience violent pains, a disagreeable sensation of heat, and a considerable stiffness in the parts that have been, in some manner, parched by it; as in the legs, the knees, the thighs, reins, and arms; and sometimes they prove feverish.

§ 159. In contemplating the cause of a patient, sun struck as we may term it, we must endeavour to distinguish, whether there may not be also some other joint causes concurring to the effect. A traveller, a labouring man, is often as much affected by the fatigue of his journey, or of his labour, as he is by the influence of solar heat.

§ 160. It is necessary to set about the cure of this disorder, as soon as ever we are confirmed of its existence; for such as might have been easily preserved by an early application, are considerably endangered by a neglect of it. The method of treating this is very much the same with that of the inflammatory diseases before mentioned; that is, by bleeding, and cooling medicines of various kinds in their drinks, by bathings, and by glysters. And 1. If the disease be very high and urgent, a large quantity of blood should be taken away, and occasionally repeated. *Lewis XIV.* was bled nine times to prevent the fatality of a stroke of the sun, which he received in hunting in 1658.

2. After bleeding, the patient's legs should be plunged into warm water. This is one of the applications that affords the most speedy relief; and I have seen the head-ach go off and return again, in proportion to the repetition, and the duration of these bathings of the legs. When the disorder is highly dangerous, it will be necessary to treat the patient with *semicupia*, or warm baths, in which he may sit up to his hips; and in the most dangerous degrees of it even to bathe the whole body: But the water, in this case, as well as in bathings of the feet, should be only sensibly warm: The use of hot would be highly pernicious.

3. Glysters made from a decoction of any of the emollient herbs are also very effectual.

4. The patient should drink plentifully of almond emulsion, No. 4; of lemonade, which is a mixture of the juice of lemons and water (and is the best drink in this disorder); of water and vinegar, which is a very good substitute for lemonade; and of what is still more efficacious, very clear whey, with the addition of a little vinegar. These various drinks may also be taken cold; linen cloths dipt in cold water and vinegar of roses may be applied to the forehead, the temples, or all over the head, which is equivalent to any other application used upon such occasions. Those which are the most cried up are the juice of purslain, of lettuce, of houseleek, and of vervain.

vain. The drink, No. 32, is also serviceable, taken every morning fasting.

§ 161. Cold baths have sometimes recovered persons out of such violent symptoms, from this cause, as have been almost quite despaired of.

A man twenty years of age, having been a very long time exposed to the scorching sun, became violently delirious, with a fever, and proved really mad; after repeated bleedings he was thrown into a cold bath, which was also frequently repeated, pouring cold water at the same time upon his head. With such assistance he recovered, though very gradually.

An officer who had rode post for several days successively, in very hot weather, swooned away immediately on his dismounting; from which he could not be recovered by the ordinary assistance used in such cases. He was saved, however, in consequence of being plunged into a bath of freezing water. It should be observed, however, that in these cases the cold bath should never be resorted to, without previous bleeding.

§ 162. It is past doubt, that if a person stands still in the violent heat of the sun, he is more liable to be struck with it, than if he walks about; and the use of white hats, or of some folds of clean white paper under a black one, may sensibly contribute to prevent any injury from the considerable heat of the sun; though it is a very incompetent defence against a violent degree of it.

The natural constitution, or even that constitution which has been formed from long custom and habit, make a very great difference between the effects of solar heat on different persons. People insensibly accustom themselves to the impressions of it, as they do to those of all the other bodies and elements, which are continually acting upon us, and by degrees we arrive at a power of sustaining his violent heat with impunity, just as others arrive at the hardiness of bearing the most rigid colds, with very little complaint or inconvenience. The human body is capable of supporting many more violences than it commonly does. Its natural force is scarcely ever ascertained among civilized nations, because their education generally tends to impair and lessen it, and always succeeds in this respect. If we were inclined to consider a purely natural, a simply physical man, we must look for him among savage nations, where only we can discover what we are able to be, and to bear. We certainly could not fail of being gainers,

ers, by adopting their corporal education; neither does it seem as yet to have been infallibly demonstrated, that we should be great losers in commuting our moral education for theirs *.

C H A P. XI.

Of the RHEUMATISM.

Of the acute Rheumatism, attended with a fever.—Of the slow, or chronic, without a fever.—The danger of spirituous and greasy remedies.

S E C T. 163.

THE Rheumatism may exist either with or without a fever. The first of these may be classed among the diseases of which I have already treated; being an inflammation which is manifested by a violent fever, preceded by a shivering, a subsequent heat, hard pulse, and a head-ach. Sometimes indeed an extraordinary coldness, with general uneasiness and inquietude, exists several days before the fever is perceived. On the second or third day, and sometimes even on the first, the patient is seized with a violent pain in some part of his body, but especially about the joints, which entirely prevents their motion, and which is often accompanied with heat, redness and a swelling of the part. The knee is often the first part attacked, and sometimes both the knees at once. When the pain is fixed, an abatement of the fever frequently happens; though in some other persons it continues for several days, and increases every evening. The pain diminishes in one part after a duration of some days, and then invades some other. From the knee it descends to the foot, or mounts to the hip, to the loins, the shoulder-blades, elbow, wrist, the nape of the neck, and frequently is felt in the intermediate parts—Sometimes one part is quite free from pain, when another is attacked; at other times many parts are seized nearly at the same instant; and I have sometimes seen every joint afflicted at

* Certainly no apology will be thought necessary for the translation of this chapter, since many of the British subjects besides our army, navy, and colonies, are frequently exposed to this disease, in different and distant climates.

once. In this case the patient is in a very terrible situation, being incapable of any motion, and even dreading the assistance of his attendants, as he can scarcely admit of touching without a sensible aggravation of his pains. He is unable to bear even the weight of the bed-cloths, which must be, as it were, arched over his limbs by a proper contrivance, to prevent their pressure: And the very walking across the chamber increases his torments. The parts in which they are the most tormenting, and obstinate, are the region of the loins, the hips, and the nape or hinder part of the neck.

§ 164. This disease is also often extended over the scalp and the surface of the head; and there the pains are excessive. I have seen them affect the eye-lids and the teeth, with inexpressible torment. As long as the distemper is situated in the more external parts, the patient, however painful his situation may prove, is in no great danger, if he be properly treated: But if by some accident, some error, or by any latent cause, the disease be repelled upon an internal part or organ, his case is extremely dangerous. If the brain is attacked, a frantic raging *delirium* is the consequence; if it falls upon the lungs, the patient is suffocated, and if it attacks the stomach or bowels, it is attended with the most astonishing pains, which are caused by the inflammation of those parts; and which inflammation, if violent, is speedily fatal. About two years since I was called to a robust man, whose guts were already in a gangrenous state, which was the consequence of a rheumatism, that first attacked one arm and one knee, the cure of which had been attempted by sweating the patient with some hot remedies. These indeed brought on a plentiful sweat, but the inflammatory humour seized the intestines, whose inflammation degenerated into a gangrene, after a duration of the most acute pain for thirty six hours, his torments terminating in death two hours after I saw him.

§ 165. This malady however is often in a less violent degree; the fever is but moderate, and ceases entirely when the pain begins; which is also confined to one, or not more than two parts.

§ 166. If the disease continues fixed, for a considerable time, in one joint, the motion of it is impaired for life, I have seen a person, who has now a wry neck, of twenty years standing, in consequence of a rheumatism in the nape of the neck; and I also saw a poor young man from

Jurat,

Jurat, who was bed-ridden, and who had lost the motion of one hip and both knees. He could neither stand nor sit, and there were but a few postures in which he could even lie in bed.

§ 167. An obstructed perspiration, an inflammatory thickness of the blood, constitute the most general cause of the rheumatism. This last concurring cause is that we must immediately encounter; since as long as that subsists, perspiration cannot be perfectly re-established, which follows of course when the inflammation is cured; for which reason, this distemper must be conducted like the other inflammatory ones, of which I have already treated.

§ 168. As soon as it is sufficiently manifest, the glyster, No. 5. should be injected, and twelve ounces of blood be taken from the arm an hour after. The patient is to enter upon a regimen, and drink plentifully of the ptisan, No. 2. and of almond-milk or emulsion, No. 4. As this last medicine may be too costly in country places for the poor peasantry, they may drink, in lieu of it, very clear whey, sweetened with a little honey. I have known a very severe rheumatism cured, after twice bleeding, without any other food or medicine, for the space of thirteen days. The whey also may be happily used by way of glyster.

§ 169. If the distemper is not considerably assuaged by the first bleeding, it should be repeated some hours after. I have ordered it four times within the first two days; and some days after I have even directed a fifth bleeding. But in general, the hardness of the pulse becomes less after the second; and notwithstanding the pains may continue as severe as before, yet the patient is sensible of less inquietude. The glyster must be repeated every day, and even twice a-day, if each of them is attended only with a small discharge, and particularly if there be a violent head-ach. In such cases as are excessively painful, the patient can scarcely dispose himself into a proper attitude or posture to receive glysters; and in such circumstances, his drinks should be made as opening as possible; and a dose of the cream of Tartar, No. 24. should be given night and morning. This very medicine, with the assistance of whey, cured two persons I advised it to, of rheumatic pains, of which they had been infested with frequent returns for many years, and which were attended with a small fever.

Apples coddled, prunes stewed, and well-ripened summer-fruits, are the properest nourishment in this disorder.

We may save the sick a great deal of pain, by putting one strong towel always under their back, and another under their thighs, in order to move them the more easily. When their hands are without pain, a third towel hung upon a cord, which is fastened across the bed, must considerably assist them in moving themselves.

§ 170. When the fever entirely disappears, and the hardness of the pulse is removed, I have ordered the purge, No. 23. with a very good effect; and if it is attended with five or six motions, the patient is very sensibly relieved. The day but one after it may be repeated successfully, and a third time, after an interval of a great number of days.

§ 171. When the pains are extremely violent, they admit of no application: Vapour baths, however, may be employed, and provided they are often used, and for a considerable time, they prove very efficacious. The purpose of these baths is only to convey the steam of boiling water to the parts affected, which may always easily be effected by a variety of simple and easy contrivances; the choice of which must depend on the different circumstances and situation of the sick.

Whenever it is possible, some of the emollient applications, No. 9. should be constantly employed. A half bath, or an entire bath of warm water, in which the patient should remain an hour, after sufficient bleedings and many glysters, affords the greatest relief. I have seen a patient, under the most acute pains of the loins, of the hips, and of one knee, put into one. He continued still under extreme torment in the bath, and on being taken out of it: But an hour after he had been put to bed, he sweated, to an incredible quantity, for thirty-six hours, and was cured. The bath should never be made use of, until after repeated bleedings, or at least other equivalent evacuations: For otherwise timed, it would aggravate the disease.

§ 172. The pains are generally most severe in the night; whence it has been usual to give composing soporific medicines. This however, has been very erroneous, as opiates really augment the cause of the disease, and destroy the efficacy of the proper remedies, and, even not seldom, far from assuaging the pains, they increase them. Indeed, they agree so little in this disease, that even the patient's natural sleep, at the invasion of this complaint, is rather
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to his detriment. They feel the very moment they are dropping asleep, such violent jerks as awaken them with great pain: Or if they do sleep a few minutes, the pains are stronger when they awake.

§ 173. The rheumatism goes off either by stool, by turbid thick urine, which drops a great proportion of a yellowish sediment, or by sweats: And it generally happens, that this last discharge prevails towards the conclusion of the disease. It may be kept up by drinking an infusion of elder flowers. At the beginning however sweating is pernicious.

§ 174. It happens also, though but very seldom, that rheumatisms determine by depositing a sharp humour upon the legs; where it forms vesications, or a kind of blisterings, which burst open, and form ulcers, that ought not to be healed and dried up too hastily, as this would occasion a speedy return of the rheumatic pains. They are disposed to heal naturally of themselves, by the assistance of a temperate regular diet, and a few gentle purges.

§ 175. Sometimes again, an abscess is formed, either in the affected part, or in some adjoining one. I have seen a vineyard-dresser, who, after violent pains of the loins, had an abscess in the upper part of the thigh, which he neglected for a long time. When I saw him, it was of a monstrous size. I ordered it to be opened, when at once above three pots of matter rushed out of it: But the patient, being exhausted, died some time after it.

Another crisis of the rheumatism has happened by a kind of itch, which breaks out upon all the parts adjacent to the seat of this distemper. Immediately after this eruption, the pains vanish: But the pustules sometimes continue for several weeks.

§ 176. I have never observed the pains to last, with considerable violence, above fourteen days, in this species of the rheumatism; though there remains a weakness, numbness, and some inflation, or puffing, of the adjoining parts: And it will also be many weeks, and sometimes even months, especially if the distemper attacked them in the fall, before the sick recover their usual strength. I have known some persons, who, after a very painful rheumatism, have been troubled with a very disagreeable sensation of lassitude, which did not go off till after a great eruption all over the body, of little vesications or blisterings, full of a watery humour; Many of them

burst open, and others withered and dried up without bursting.

§ 177. The return of strength into the parts affected, may be promoted by frictions night and morning, with flannel or any other woollen stuff; by using exercise; and by conforming exactly to the directions given in the chapter on convalescence, or recovery from acute diseases. The rheumatism may also be prevented by the means I have pointed out, in treating of pleurisies and quinisies.

§ 178. Sometimes the rheumatism, with a fever, invades persons who are not so sanguine, or abounding in blood; or whose blood is not so much disposed to inflammation; those whose flesh and fibres are softer; and in whose humours there is more thinness and sharpness, than viscosity and thickness. Bleeding proves less necessary for persons so constituted, notwithstanding the fever should be very strong. Some constitutions require more discharges by stool, and after they are properly evacuated, some blisters should be applied, which often afford them a sensible relief as soon as ever they begin to operate. Nevertheless they should never be used where the pulse is hard. The powder No. 25. answers very well in these cases.

§ 179. There is another kind of rheumatism, called chronic, or lasting. It is known by the following characters or marks. 1. It is commonly unattended with a fever. 2. It continues a very long time. 3. It seldom attacks so many parts at once as the former. 4. Frequently no visible alteration appears in the affected part, which is neither more hot, red, or swelled, than in its healthy state; though sometimes one or other of these symptoms is evident. 5. The former, the inflammatory rheumatism, attacks strong, vigorous, robust persons; But this rather invades persons arrived at a certain period of life, or such as are weak and languishing.

§ 180. The pain of the chronic rheumatism, when left to itself, or injudiciously treated, lasts sometimes many months, and even years. It is particularly and extremely obstinate, when it is exerted on the head, the loins, or on the hip, and along the thighs, when it is called the *sciatica*. There is no part indeed, which this pain may not invade: Sometimes it fixes itself in a small spot, as in one corner of the head, the angle of the jaw, the extremity of a finger, in one knee, on one rib, or on the breast, where it often excites pains, which make the patient

tient apprehensive of a cancer. It penetrates also to the internal parts. When it affects the lungs, a most obstinate cough is the consequence; which degenerates at length into very dangerous disorders of the breast. In the stomach and bowels, it occasions most violent pains like a colic; and in the bladder symptoms so greatly resembling those of the stone, that persons who are neither deficient in knowledge nor experience, have been more than once deceived by them.

§ 181. The treatment of this chronical rheumatism does not vary considerably from that of the former. Nevertheless, in the first place, if the pain is very acute, and the patient robust, a single bleeding at the onset is very proper and efficacious. 2. The humours ought to be diluted, and their acrimony or sharpness should be diminished, by a very plentiful use of a ptisan of burdock-roots, No. 26. 3. Four or five days after drinking abundantly of this, the purging powder, No. 21, may be taken with success. In this species of the rheumatism, a certain medicine is sometimes found serviceable. This has acquired some reputation, particularly in the country, where they bring it from *Geneva*, under the title of the opiate for the rheumatism, though I cannot say for what reason, as it is indeed neither more nor less than the electuary *caryocostinum*, which may be procured at our apothecaries. I shall observe, however, that this medicine has done mischief in the inflammatory rheumatism, and even in this, as often as the persons afflicted with it are feeble, thin, and of a hot temperament; and either when they have not previously taken diluting drinks, or when it has been used too long. For, in such a circumstance, it is apt to throw the patient into an irrecoverable weakness. The composition consists of the hottest spices, and of very sharp purgatives.

§ 182. When general remedies have been used, and the disorder still continues, recourse should be had to such medicines as are available to restore perspiration; and these should be persisted in for a considerable time. The pills No. 18, with a strong infusion of elder flowers, have often succeeded in this respect: And then after a long continuance of diluting drinks, if the fever is entirely subdued, if the stomach exerts its functions well, the patient is no ways costive, if he is not of a dry habit of body, and the part affected remains without inflammation, the patient may safely take the powder No. 25, at

night going to bed, with a cup or two of an infusion of *cardus benedictus*, or the blessed thistle, and a morsel of Venice-treacle of the size of a hazel-nut, or a filberd, This remedy brings on a very copious sweating, which often expells the disease *. These sweats may be rendered still more effectual, by wrapping up the affected part in a flannel dipt in the decoction No. 27.

§ 183. But of all these pains, the *sciatica* is one of the most tedious and obstinate. Nevertheless I have seen the greatest success, from the application of seven or eight cupping glasses on the tormented part; by which, without the assistance of any other remedy, I have cured, in a few hours, *sciaticas* of many years standing, which had baffled other remedies. Blisters, or any such stimulating plaisters, as bring on a suppuration and discharge from the afflicted part, contribute also frequently to the cure; though less effectually than cupping, which should be repeated several times. Green cere-cloth, commonly called Oil-cloth, (whether the ingredients be spread on taffety or on linen) being applied to the diseased part, disposes it to sweat abundantly, and thus to discharge the sharp humour which occasions the pain. Sometimes both these applications, but especially that spread on silk (which may be applied more exactly and closely to the part, and which is also spread with a different composition) raise a little vesication on the part as blisters do. A plaster of quicklime and honey blended together, has cured inveterate *sciaticas*. Oil of eggs has sometimes succeeded in such cases. A seton has also been successfully made in the lower part of the thigh. Finally, some pains, which have not yielded to any of these applications, have been cured by actual burning inflicted on the very spot where the most violent pain has been felt; except some particular reason, drawn from an anatomical knowledge of the part, should determine the surgeon not to apply it there. The skull or head should never be cauterised with a burning iron.

§ 184. The hot baths of *Bourbon*, *Plombiers*, *Aix-la-Chapelle*, and many others, are often very efficacious in these chronical pains; Notwithstanding, I really think,

* Gum Guaiacum, given from six to ten grains morning and evening is often very successful in these cases. It may be made into pills or bolusses with the rob of elder, or with the extract of juniper.

there

there is no rheumatic pain that may not be cured without them. The common people substitute to these a bath made of the husk of grapes, after their juice is expressed, which cures some by making them sweat abundantly. Cold baths, however, are the best to keep off this disease; but then they cannot always be safely ventured on. Many circumstances render the use of them impracticable to particular persons. Such as are subject to this chronical rheumatism, would do very well to rub their whole bodies every morning, if they could, but especially the afflicted parts, with flannel. This habit keeps up perspiration beyond any other assistance; and indeed sometimes even increases it too much. It would be serviceable too, if such as are afflicted with this cruel disease, wore flannel all over their skin, during the winter.

After a violent rheumatism, people should long be careful to avoid that cold and moist air, which disposes them to relapse.

§ 185. Rheumatic people have too frequent a recourse to very improper and hurtful medicines, in this distemper which daily produce very bad consequences. Such are spirituous medicines, brandy, and arquebuse-water. They either render the pain more obstinate and fixed, by hardening the skin, or they repel the humour to some inward part. And instances are not wanting of persons who have died suddenly, from the application of spirit of wine upon the parts that were violently afflicted with the rheumatism. It also happens sometimes that the humour, having no outlet through the skin, is thrown internally on the bone, and affects it. A very singular fact occurred in this respect, an account of which may be serviceable to some persons afflicted with the disease. A woman at night was chaffing the arm of her husband, who had the rheumatism there, with spirit of wine; when a very lucky accident prevented the mischief she might have occasioned by it. The spirit of wine took fire from the flame of the candle she made use of, and burnt the diseased part. It was dressed of course, and the suppuration that attended it entirely cured the rheumatism.

Sharp and greasy unctions or ointments produce very bad effects, and are equally dangerous. A caries, a rotteness of the bones, has ensued upon the use of a medicine called the Balsam of Sulphur with turpentine. I was consulted in 1750, three days before her decease, about a woman who had long endured acute rheumatic pains.

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She had taken various medicines, and, among the rest, a considerable quantity of a ptisan, in which antimony was blended with some purging medicines, and a greasy spirituous balsam had been rubbed into the part. The fever, the pains, and the dryness of the skin soon increased; the bones of the thighs and arms became carious: And in moving the patient no more than was necessary for her relief and convenience, without taking her out of her bed, both thighs and one arm broke. So dreadful an example should make people cautious of giving or applying medicines inconsiderately, even in such diseases as appear but trifling in themselves. I must also inform my readers, there are some rheumatic pains, which admit of no application; and that almost every medicine aggravates them. In such cases the afflicted must content themselves with keeping the parts affected from the impressions of the air, by a flannel, or the skin of some animal with the fur on.

It is also more adviseable sometimes to leave a sufferable and inveterate pain to itself, especially in old or weakly people, than to employ too many medicines, or such violent ones, as should affect them more importantly than the pains did.

§ 186. If the duration of the pains fixed in the same place, should cause some degree of stiffness in the joint affected, it should be exposed twice a-day to the vapour of warm water, and dried well afterwards with hot linen: Then it should be well chaffed, and lastly touched over with ointment of marsh-mallows. Pumping, if superadded to this vapour, considerably increases its efficacy. I directed, for a case of this sort, a very simple machine of white tin, or latten, which combined the application of steam and the pump.

§ 187. Very young children are sometimes subject to such violent and extended pains, that they cannot bear touching in any part, without excessive crying. We must be careful to avoid mistaking these cases, and not to treat them like rheumatisms. They sometimes are owing to worms, and go off when these have been discharged.

C H A P. XII.

Of the BITE of a MAD DOG.

S E C T. 188.

MEN may contract the particular and raging symptom, which is very generally peculiar to this disease from this cause, and even without any bite; but this happens very rarely indeed. It is properly a distemper belonging to the canine *genus*, consisting of the three species of dogs, wolves, and foxes, to whom only it seems inherent and natural; scarcely ever arising in other animals, without its being inflicted by them. Whenever there occurs one of them who breeds it, he bites others, and thus the poison, the cause of this terrible distemper, is diffused. Other animals besides the canine species, and men themselves being exposed to this accident, do sometimes contract the distemper in all its rage and horror; though it is not to be supposed, that this is always an unfailing consequence.

§ 189. If a dog, who used to be lively and active, becomes all at once mopish and morose; if he has an aversion to eat; a particular and unusual look in his eyes; a restlessness, which appears from his continually running to and fro, we may be apprehensive he is likely to prove mad; at which very instant he ought to be tied up securely, that it may be in our power to destroy him as soon as the distemper is evident. - Perhaps it might be still safer to kill them at once.

Whenever the malady is certain, the symptoms heighten pretty soon. His aversion to food, but especially to drink, grows stronger. He no longer seems to know his master; the sound of his voice changes; he suffers no person to handle or approach him, and bites those who attempt it. He quits his ordinary habitation, marching on with his head and his tail hanging downwards, his tongue loling half out, and covered with foam or slaver, which indeed pretty often happens indifferently to all dogs. Other dogs often scent him at a considerable distance, and avoid him with an air of horror, which is a certain indication of this distemper. Sometimes he contents himself with biting only those who are accidentally near him: While

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at other times, being more enraged, he rushes to the right and left on all men and animals about him. He hurries away with great fear from whatever waters occur to him; At length he falls down spent and exhausted; sometimes he rises up again, and drags himself on for a little time, commonly dying the third, or, at the latest, on the fourth day after the manifest appearance of the distemper, and sometimes even sooner.

§ 190. When a person is bit by such a dog, the wound commonly heals up as readily, as if it was not in the least poisonous; But after the expiration of a longer or shorter term, from three weeks to three months, but most commonly in about six weeks, the person bit begins to perceive in the spot that was bitten, a certain dull obtuse pain. The scar of it swells, inflames, bursts open, and weeps out a sharp, fetid, and sanious, or somewhat bloody humour. At the same time the patient becomes sad and melancholy; he feels a kind of indifference, insensibility, and general numbness; an almost incessant coldness; a difficulty of breathing; a continual anguish, and pains in his bowels. His pulse is weak and irregular, his sleep restless, turbid, and confused with ravings, with starting up in surprise, and with terrible frights. His discharges by stool are often much altered and irregular, and small cold sweats appear at very short intervals. Sometimes there is also a slight pain or uneasiness in the throat. Such is the first degree of this distemper, and it is called by some physicians the Dumb Rage, or madness.

§ 191. Its second degree, the confirmed or downright madness, is attended with the following symptoms. The patient is afflicted with a violent thirst and a pain in drinking. Soon after this he avoids all drink, but particularly water, and, within some hours after, he even abhors it. This horror becomes so violent, that the bringing water near his lips, or into his sight, the very name of it, or of any other drink; the sight of objects, which, from their transparency, have any resemblance of water, as a looking-glass, &c. afflicts him with extreme anguish, and sometimes even with convulsions. They continue however still to swallow (though not without great difficulty) a little bread or meat, and sometimes a little soup. Some even get down the liquid medicines that are prescribed them, provided there be no appearance of water in them,
or

or that water is not mentioned to them at the same time. Their urine becomes thick and high coloured, and sometimes there is a suppression or stoppage of it: The voice either grows hoarse, or is almost entirely abolished. But the reports of the bitten barking like dogs, are ridiculous and superstitious fictions, void of any foundation; as well as many other fables, that have been blended with the history of this distemper. The barking of dogs however is very disagreeable to them. They are troubled with short deliriums or ravings, which are sometimes mixed with fury. It is at such times that they spit all around them; that they attempt also to bite, and sometimes unhappily effect it. Their looks are fixed, as it were, and somewhat furious, and their visage frequently red. It is pretty common for these miserable patients to be sensible of the approach of their raging fit, and to conjure the bystanders to be upon their guard. Many of them never have an inclination to bite. The increasing anguish and pain they feel become inexpressible: They earnestly wish for death; and some of them have destroyed themselves, when they had the means of effecting it.

§ 192. It is with the spittle, and the spittle only, that this dreadful poison unites itself. And here it may be observed, 1st, that if the wounds have been made through any of the patient's cloaths, they are less dangerous than those inflicted immediately on the naked skin. 2, That animals who abound in wool, or have very thick hair, are often preserved from the mortal impression of the poison; because in these various circumstances, the cloaths, the hair, or the wool, have wiped, or even dried up, the flaver of their teeth. 3, The bites inflicted by an infected animal, very soon after he has bitten many others, are less dangerous than the former bites, because their flaver is lessened or exhausted. 4, If the bite happens in the face or in the neck, the danger is greater, and the operation of the venom is quicker too; by reason the spittle of the person so bit is sooner infected. 5, The higher the degree of the distemper is advanced, the bites become proportionably more dangerous. From what I have just mentioned here, it may be easily seen, why, of many who have been bitten by the same sufferer some have been infected with this dreadful malady, and others not.

§ 193. A great number of remedies have been highly cried up, as famous in the cure of this distemper; and, in *Switzerland* particularly, the root of the eglantine or wild rose,

rose, gathered at some particular times, under the favourable aspect of the moon, and dried with some extraordinary precautions. There is also the powder of *Palmarius*, of calcined egg-shells, that of the *lichen terrestris*, or ground-liverwort, with one third part of pepper, a remedy long celebrated in *England*; powder of oyster-shells; of vermain, bathing in salt water; St. Hubert's key, &c. &c. But the death of a multitude of those who have been bitten notwithstanding their taking the greatest part of all these boasted antidotes, and the certainty of no ones escaping, who had been attacked with the high raging symptom, the *hydrophobia*, have demonstrated the inefficacy of them all to all *Europe*. It is incontestible that to the year 1730, not one single patient escaped, in whom the distemper was really manifest; and that every medicine then employed to prevent it was useless. When medicines had been given before the great symptom appeared, in some of those who took them, it afterwards appeared, in others not. The same different events occurred also to others who were bit, and who took no medicines; so that upon the whole, before that date, no medicine seemed to be of any consequence. Since that time, we have had the happiness to be informed of a certain remedy, which is mercury joined to a few others.

§ 194. In short, there is a necessity for destroying or expelling the poison itself, which mercury effects, and is consequently the counter poison of it. That poison produces a general irritation of the nerves; this is to be removed or assuaged by antispasmodics; so that in mercury or quick silver, joined to antispasmodics consists the whole that is indicated in the cure of this malady. There really have been many instances of persons cured by these medicines, in whom the distemper had been manifest in its rage and violence; and as many as have unfortunately received the cause of it in a bite, should be firmly persuaded, that in taking these medicines, and using all other proper precautions, they shall be entirely secured from all its ill consequences. Those also in whom the rage and fury of this distemper is manifest, ought to use the same medicines with entire hope and confidence, which may justly be founded on the many cures effected by them. It is acknowledged, however, that they have proved ineffectual in a few cases; but what distemper is there which does not some time prove incurable?

§ 195. The very moment after receiving the bite, if it happens to be in the flesh, and if it can safely be effected, all the part affected should be cut away*. The antients directed it to be cauterised, or burnt with a red-hot iron, (mere scarification being of very little effect); and this method would very probably prove effectual. It requires more resolution, however, than every patient is endued with. The wound should be washed and cleansed a considerable time with warm water, with a little sea salt dissolved in it. After this, into the lips and edges of the wound, and into the surface of the part all about it, should be rubbed a quarter of an ounce of the ointment No. 28; and the wound should be dressed twice daily, with the soft lenient ointment No. 29, to promote suppuration; but that of No. 28, is to be used only once a-day.

In point of regimen, the quantity of nourishment should be less than usual, particularly in the article of flesh: He should abstain from wine, spirituous liquors, all sorts of spices, and hot inflaming food. He should drink only barley-water, or an infusion of the flowers of the lime-tree. He should be guarded against costiveness by a soft relaxing diet, or by glysters, and bathe his legs once a day in warm water. Every third day, one dose of the medicine No. 30, should be taken; which is compounded of mercury, that counterworks the poison, and of musk, which prevents the spasms or convulsive motions. I confess at the same time, that I have less dependence on the mercury given in this form, and think the rubbing in of its ointment considerably more efficacious, which I shall hope will always prevent the fatality of this dreadful, surprising disease.

§ 196. If the raging symptom, the dread of water, has already appeared, and the patient is strong, and abounds with blood; he should,

1. Be bled to a considerable quantity, and this may be repeated twice, thrice, or even a fourth time, if circumstances require it.

2. The patient should be put, if possible, into a warm bath; and this should be used twice daily.

* Several examples have been given, where the lives of people have been preserved by this operation. But neither this, nor the burning afterwards recommended, will be of any use, unless performed immediately. I myself have known it performed within an hour, to no purpose. B.

3. He

3. He should every day receive two, or even three of the emollient glysters No. 5.

4. The wound, and the parts adjoining to it, should be rubbed with the ointment No. 28, twice a-day.

5. The whole limb which contains the wound, should be rubbed with oil, and be wrapped up in an oily flannel.

6. Every three hours, a dose of the powder No. 30, should be taken in a cup of the infusion of lime-tree and elder-flowers.

7. The prescription, No. 31, is to be given every night, and to be repeated in the morning, if the patient is not easy, washing it down with the same infusion.

8. If there be a great nausea at the stomach, with a bitterness in the mouth, give the powder No. 35, which brings up a copious discharge of glewy and bilious humours.

9. There is very little occasion to say any thing relating to the patient's food, in such a situation. Should he ask for any, he should be allowed panada, light soup, bread, soups made of farinaceous or meally vegetables, or a little milk.

§ 197. By the use of these remedies, the symptoms will be observed to lessen, and to disappear by degrees; and finally, health will be re-established. But if the patient should long continue weak, and subject to terrors, he may take a dose of the powder No. 14, thrice a day.

§ 198. It is certain that a boy, in whom the raging symptom of this disease had just appeared, was perfectly cured, by bathing all about the wounded part with sallad oil, in which some camphire and opium were dissolved, with the addition of repeated frictions of the ointment No. 28, and making him take some *eau de luce* with a little wine. This medicine, a coffee-cup of which may be given every four hours, allayed the great inquietude and agitation of the patient, and brought on a very plentiful sweat, on which all the symptoms vanished.

§ 199. Dogs may be cured by rubbing in a triple quantity of the same ointment directed for men, and by giving them the bolus No. 33. Both these means should be used as soon as ever they are bit. When the great symptom is manifest, there would be too much danger in attempting to apply one, or to give the other; and they should be immediately killed. It might be proper, however, to try if they

they would swallow down the bolus, on its being thrown to them.

As soon as ever dogs are bit, they should be safely tied up, and not let loose again before the expiration of three or four months.

§ 200. A dangerous and false prejudice has prevailed, with regard to the bites from dogs; and it is this—That if a dog who had bit any person, without being mad at the time of his biting, should become mad afterwards, the person so formerly bitten would prove mad too at the same time. Such a notion is full as absurd as it would be to affirm, that if two persons had slept in the same bed, and that one of them should take the itch, the small-pox, or any other contagious distemper, ten or twelve years afterwards, that the other should also be infected with it, and at the same time too.

Of two circumstances, whenever a person is bit, one must certainly be, Either the dog which gives the bite is about to be mad himself, in which case this would be evident in a few days; and then it must be said, the person was bitten by a mad dog; Or else, that the dog was absolutely sound, having neither conceived, or bred in himself, nor received from without the cause, the principle of madness: In which last case, I ask any man in his senses, if he could communicate it? No person, no thing imparts what it has not. This false and crude notion excites those who are possessed with it to a dangerous action: They exercise that liberty the laws unhappily allow them, of killing the dog; by which means they are left uncertain of his state, and of their own chance. This is a dreadful uncertainty, and may be attended with embarrassing and troublesome consequences, independent of the poison itself. The reasonable conduct would be, to secure and observe the dog very closely; in order to know certainly whether he is or is not mad.

§ 201. It is necessary no longer to represent the horror, the barbarity and guilt of that cruel practice, which prevailed not very long since, of suffocating persons in the height of this disease with the bed-cloaths, or between matresses. It is now prohibited in most countries; and doubtless it will be punished, or at least ought to be, even in those where as yet it is not.

Another cruelty, of which we hope to see no repeated instance, is that of abandoning those miserable patients to themselves, without the least resource or assistance: A

most detestable custom, even in these times, when there was not the least hope of saving them; and still more criminal in our days, when they may be recovered effectually. I do again affirm, That it is not very often these afflicted patients are disposed to bite; and that even when they are, they are afraid of doing it, and request the bystanders to keep out of their reach; so that no danger is incurred, or where there is any, it may easily be avoided by a few precautions.

C H A P. XIII.

Of the SMALL-POX.

S E C T. 202.

THE Small-Pox is the frequentest and the most extensive of all diseases, since out of a hundred persons there are not more than four* or five exempted from it. It is equally true, however, that if it attacks almost every person, it attacks them but once; so that having escaped through it, they are always secure from † it. It must be acknowledged, at the same time, to be one of the most destructive distempers; for if, in some years or seasons, it proves to be of a very mild and gentle kind, in others it is almost as fatal as the plague: It being demonstrated, by calculating the consequences of its most raging and its gentlest prevalence, that it kills one seventh part of the number it attacks.

* Dr. Kirkpatrick has calculated the proportion of those who escape, though living within the influence of the small-pox, to be 25 in 1000.

† It has been strongly contended by several eminent authors, that the small-pox may be received twice. Although this should be granted them, yet the instances must be allowed to be extremely rare: But when we consider how liable this disease is to be confounded with several other eruptive fevers, and how badly most of the histories brought to favour this opinion have been supported, we shall have little reason to credit it. Dr. Monro, in his late extensive inquiry upon this subject, has not among all the practitioners of Scotland been able to produce a single instance where the disease has been twice received; but, on the contrary, detects the fallacy of several such histories as had been offered to him. *B.*

§ 203. People generally have the Small-pox in their infancy, or in their childhood. It is very seldom known to attack only one person in one place: Its invasions being very generally epidemical, and seizing a large proportion of those who have not suffered it. It commonly ceases at the end of some weeks, or of some months, and rarely ever appears again in the same place until four, five, or six years after.

§ 204. This malady often gives some intimation of its approach, three or four days before the appearance of the fever, by a little dejection; less vivacity and gaiety than usual; a great propensity to sweat; less appetite; a slight alteration of the countenance; and a sort of pale livid colour about the eyes: Notwithstanding which, in children of a lax and phlegmatic constitution, I have known a moderate agitation of their blood (before their shivering approached) give them * a vivacity, gaiety, and a rosy improvement of their complexion, beyond what nature had given them.

Certain short vicissitudes of heat or coldness succeed the former introductory appearances, and at length a considerable shivering, of the duration of one, two, three, or four hours: This is succeeded by violent heat, accompanied with pains of the head, loins, vomiting, or at least with a frequent propensity to vomit.

This state continues some hours, at the expiration of which the fever abates a little in a sweat, which is sometimes a very large one: The patient then finds himself better, but is nevertheless cast down, torpid or heavy, very squeamish, with a head-ach and pain in the back, and a disposition to be drowsy. The last symptom indeed is not very common, except in children less than seven or eight years of age.

The abatement of the fever is of short duration; and some hours after, generally towards the evening, it returns with all its attendants, and terminates again by sweats, as before.

This state of the malady lasts three or four days; at the end of which term, and seldom later, the first eruptions appear among the sweat, which terminates the paroxysm, or return of the fever. I have generally observed the

* The same appearances very often occur in such subjects by inoculation, before actual sickening, as has been observed and instanced before in this work.

earliest eruption to appear in the face, next to that on the hands, on the forepart of the arms, on the neck, and on the upper part of the breast. As soon as this eruption appears, if the distemper is of a gentle kind and disposition, the fever almost entirely vanishes: The patient continues to sweat a little, or transpire; the number of eruptions increases, others coming out on the back, the sides, the belly, the thighs, the legs, and the feet. Sometimes they are pushed out very plentifully, even to the soles of the feet, where, as they increase in size, they often excite very sharp pain, by reason of the great thickness and hardness of the skin in these parts.

Frequently, on the first and second day of eruption, (speaking hitherto always of the mild kind and degree of the disease) there returns again a very gentle revival of the fever about the evening, which, about the termination of it, is attended with a considerable and final eruption: Though, as often as the fever terminates perfectly after the earliest eruption, a very distinct and very small one is a pretty certain consequence. For though the eruption is already, or should prove only moderate, the fever, as I have before said, does not totally disappear; a small degree of it still remaining, and heightening a little every evening.

These pustules, or efflorescences, on their first appearance, are only so many very little red spots, considerably resembling a flea bite, but distinguishable by a small white point in the middle, a little raised above the rest, which gradually increases in size, with the redness extended about it. They become whiter, in proportion as they grow larger; and generally upon the sixth day, including that of their first eruption, they attain their utmost magnitude, and are full of *pus* or matter. Some of them grow to the size of a pea, and some still a little larger; but this never happens to the greatest number of them. From this time they begin to look yellowish, they gradually become dry, and fall off in brown scales, in ten or eleven days from their first appearance. As their eruption occurred on different days, they also wither and fall off successively. The face is sometimes clear of them, while pustules are seen upon the legs, not fully ripe, or suppurated; and those in the soles of the feet frequently remain much longer.

§ 205. The skin is of course extended, or stretched out by the pustules; and after the appearance of a certain quantity,

quantity, all the interstices, or parts between the pustules, are red and bright, as it were, with a proportionable inflation or swelling of the skin. The face is the first part that appears bloated, from the pustules there first attaining their utmost size; and this inflation is sometimes so considerable as to look monstrous: The like happens also to the neck, and the eyes are entirely closed up by it. The swelling of the face abates in proportion to the scabbing and drying up of the pustules; and then the hands are puffed up prodigiously. This happens successively to the legs, the tumor of swelling being the consequence of the pustules attaining their utmost size, which happens by succession in these different parts.

§ 206. Whenever there is a very considerable eruption, the fever is heightened at the time of suppuration, which is not to be wondered at; one single boil excites a fever: How is it possible then that some hundreds, nay some thousands of these little abscesses, should not occasion one? This fever is the most dangerous period or time of the disease, and occurs between the ninth and thirteenth days; as many circumstances vary the term of suppuration two or three days. At this painful and perilous season then, the patient becomes very hot and thirsty; he is harassed with pain, and finds it very difficult to discover a favourable easy posture. If the malady runs very high, he has no sleep, he raves, becomes greatly oppressed, is seized with a heavy drowsiness; and if he does not survive, he dies either suffocated or lethargic, and sometimes in a state compounded of both these symptoms.

The pulse, during the fever of suppuration, is sometimes of an astonishing quickness, while the swelling of the wrists makes it seem, in some subjects, to be very small. The most critical and dangerous time is, when the swellings of the face, head, and neck are in their highest degree. Whenever the swelling begins to fall, the scabs on the face to dry [*supposing neither of these to be too sudden and premature, for the visible quantity of the pustules*] and the skin to shrivel, as it were, the quickness of the pulse abates a little, and the danger diminishes. When the pustules are very few, this second fever is so moderate, that it requires some attention to discern it, so that the danger is next to none.

§ 207. Besides these symptoms, there are some others which require a considerable attention and vigilance; one of these is the soreness of the throat with which many

persons in the small-pox are afflicted, as soon as the fever grows pretty strong. It continues for two or three days, feels very strait and troublesome in the action of swallowing, and whenever the disease is extremely acute, it entirely prevents swallowing. It is commonly ascribed to the eruption of pustules in the throat; but this is a mistake, such pustules being almost constantly imaginary*. It begins, most frequently, before the eruption appears; if this complaint is in a light degree, it terminates upon the eruption; and whenever it revives again in the course of the distemper, it is always in proportion to the degree of the fever. Hence we may infer, it does not arise from the pustules, but is owing to the inflammation; and as often as it is of any considerable duration, it is almost ever attended with another symptom, the salivation, or a discharge of a great quantity of spittle. This salivation rarely exists, where the distemper is very gentle, or the patient very young; and is full as rarely absent, where it is severe, and the patient past seven or eight years old; but when the eruption is very confluent, and the patient adult, or grown up, the discharge is surprising. Under these circumstances, it flows out incessantly, allowing the afflicted patient no rest or respite, and often incommodes him more than any other symptom of the distemper; and so much the more, as, after its continuance for some days, the lips, the inside of the cheeks, the tongue, and the roof of the mouth are, as it were, entirely peeled and flayed. Nevertheless, however painful and embarrassing this discharge may be, it is very necessary and salutary. Mere infants are less subject to it, some of them having a looseness in lieu of it: And yet I have observed even this last discharge to be considerably less frequent in them, than a salivation is in grown people.

* As pustules are very often visible on the tongue, and sometimes on the roof, even to its process called the palate, which I have plainly seen, it seems not very easy to assign any insuperable obstacle to the existence of a few within the throat; tho' this scarcely ever occurs in the distinct small-pox. Doubtless, however, a considerable inflammation of that part will be as likely to produce the great difficulty of swallowing, as the existence of pustules there; which our learned author does not absolutely reject, and consequently will forgive this supposition of them; especially if he credits the ocular testimony of Dr. *Violante*.

§ 208. Children to the age of five or six years, are liable to convulsions, before eruption: These however are not dangerous, if they are not accompanied with other grievous and violent symptoms. But such convulsions as supervene, either when eruption having already occurred suddenly retreats, or *strikes in*, according to the common phrase; or, during the course of the fever of suppuration, are greatly more terrifying.

Involuntary discharges of blood from the nose often occur, in the first state of this distemper, which are extremely serviceable, and commonly lessen or carry off the head-ach. Mere infants are less subject to this discharge, though they have sometimes a little of it; and I have known a considerable *stupor*, or drowsiness, vanish immediately after this bleeding.

§ 209. The small-pox is commonly distinguished into two kinds, the confluent and the distinct, such a distinction really existing in nature: But as the treatment of each of them is the same, and as the quantity or dose of the medicine is only to be varied, in proportion to the danger of the patient (not to enter here into very tedious details, and such as might exceed the comprehension of many of our readers, as well as whatever might relate particularly to the malignant small-pox) I shall limit myself within the description I have premised, which includes all the symptoms common to both these kinds of the small-pox. I content myself with adding here, that we may expect a very confluent and dangerous pock, if, at the very time of seizure, the patient is immediately attacked with many violent symptoms, more especially if his eyes are extremely quick, lively, and even glistening, as it were; if he vomits almost continually; if the pain of his loins be violent; and if he suffers at the same time great anguish and inquietude: If in infants, there is a great *stupor* or heaviness, if eruption appears on the third day, and sometimes even on the second; as the hastier eruptions in this disease signify the most dangerous kind and degree of it; and, on the contrary, the slower the eruption is, it is the safer too; supposing this slowness of the eruption not to have been the consequence of great weakness, or of some violent inward pain.

§ 210. The disorder is sometimes so very mild and slight, that eruption appears with scarcely any suspicion of the child's having the least ailment, and the event is as favourable as the invasion. The pustules appear, grow

large, suppurate, and attain their maturity, without confining the patient to his bed, or lessening either his sleep or appetite.

It is very common to see children in the country (and they are seldom more than children who have it so very gently) run about in the open air, through the whole course of this disease, and feeding just as they do in health. Even those who take it in a more violent degree, commonly go out when the eruption is finished, and give themselves up, without reserve, to the voracity of their hunger. Notwithstanding all this neglect, many get perfectly cured; though such a conduct should never be proposed for imitation, since numbers have experienced its pernicious consequences, and several of these children have been brought to me, especially from *Jurat*, who after such neglect, in the course of the mild and kindly sort of this distemper, have contracted complaints and infirmities of different kinds, which have been found very difficult to subdue.

§ 211. This still continues to be one of these distempers whose danger has been long increased by its improper treatment, and especially by forcing the patients into sweats; and it still continues to be increased, particularly among country people. They have seen eruption appear while the patient sweats, and observed he found himself better after its appearance: And hence they conclude, that by quickening and forcing out this eruption, they contribute to his relief, and suppose, that by increasing the quantity of his sweats, and the number of his eruptions, the blood is the better cleared and purified from the poison. These are mortal errors, which daily experience has demonstrated by their tragical consequences.

When the contagion, or poison, which generates this disease, has been admitted into the blood, it requires a certain time to produce its usual effects: At which time the blood being tainted by the venom it has received, and by that which such venom has formed or assimilated from it, nature makes an effort to free herself of it, and to expel it by the skin, precisely at the time when every thing is predisposed for that purpose. This effort pretty generally succeeds, being very often rather too rapid and violent, and very seldom too weak. Hence it is evident, that whenever this effort is deficient, it ought not to be heightened by hot medicines, or means which make it too violent and dangerous: For when it already exceeds in this respect,

spect, a further increase of such violence must render it mortal. There are but few cases in which the efforts of nature, on this occasion, are too languid and feeble, especially in the country; and whenever such rare cases do occur, it is very difficult to form a just and proper estimation of them: For which reason we should be very reserved and cautious in the use of heating medicines, which are so mortally pernicious in this disease.

Wine, Venice-treacle, cordial confections, hot air, and loads of bed-clothes, annually sweep off thousands of children, who might have recovered, if they had taken nothing but warm water: And every person who is interested in the recovery of patients in this distemper, ought carefully to prevent the smallest use of such drugs; which, if they should not immediately aggravate it to a fatal degree, yet will certainly increase the severity and torment of it, and annex the most unhappy and tragical consequences to it.

The prejudice in this point is so strongly rooted, that a total eradication of it must be very difficult: But I only desire people would be convinced by their own eyes, of the different success of the hot regimen, and of that I shall propose. And here indeed I must confess, I found more attention and docility, on this point among the inhabitants of the city, and especially in the last epidemical spreading of the small-pox, than I presumed to hope for. Not only as many as consulted me on the invasion of it, complied exactly with the cooling regimen I advised them; but their neighbours also had recourse to it, when their children sickened: And being often called in when it had been many days advanced, I observed with great pleasure, that in many houses, not one heating medicine had been given; and great care had been taken to keep the air of the patient's chamber refreshingly cool and temperate. This encourages me to expect, that this method hereafter will become general here. What certainly ought most essentially to conduce to this is, that notwithstanding the diffusion or spreading of this disease was as numerous and extensive as any of the former, the mortality, in consequence thereof, was evidently less.

§ 212. At the very beginning of the small-pox (which may reasonably be suspected, from the presence of the symptoms I have already described; supposing the person complaining never to have had it, and the disease to prevail near his residence) the patient is immediately to be put on a
strict

strict regimen, and to have his legs bathed morning and evening in warm water. This is the most proper and promising method to lessen the quantity of eruption in the face and head, and to facilitate it every where else on the surface. Glysters also greatly contribute to abate the head-ach, and to diminish the reachings to vomit, and the actual vomitings, which greatly distress the patient; but which however it is highly pernicious to stop by any stomachic cordial confection, or by Venice-treacle; and still more dangerous to attempt removing the cause of them, by a vomit or purge, which are hurtful in the beginning of the small-pox.

If the fever be moderate, the bathing of the legs on the first day of sickening, and one glyster may suffice then. The patient must be restrained to his regimen; and instead of the ptisan No. 1, 2, 4, a very young child should drink nothing but milk, diluted with two thirds of elder-flower or lime-tree tea, or with balm tea, if there be no perceivable fever: And, in short, if they have an aversion to the taste of them all, with only the same quantity of good clear water*. An apple coddled, or baked, may be added to it; and if they complain of hunger, a little bread may be allowed; but they must be denied any meat, or meat-broth, eggs, and strong drink; since it has appeared from observations frequently repeated, that children who have been indulged with such diet, proved the worse of it, and recovered more slowly than others. In this early stage too, clear whey alone may serve them instead of every other drink, the good effects of which I have frequently been a witness too; or some butter-milk may be allowed. When the distemper is of a mild species, a perfect cure ensues, without any other assistance or medicine: But we should not neglect to purge the patient as soon as the pustules are perfectly scabbed on the greater part of his face, with the prescription No. 11, which must be repeated six days after. He should not be allowed flesh till after this second purge; though after the first he may be allowed some well boiled pulse, or garden stuff and bread, and in such a quantity, as not to be pinched with hunger, while he recovers from the disease.

§ 213. But if the fever should be strong, the pulse hard, and the pain of the head and loins should be violent,

* In very hot countries, there have been instances of people, who have recovered by draughts of cold water.

he must, 1st, immediately lose blood from the arm; receive a glyster two hours after; and, if the fever continues, the bleeding must be repeated. I have directed a repetition of it even to the fourth time, within the two first days, to young people under the age of 18; and it is more especially necessary in such persons as, with a hard and full pulse, are also affected with a heavy drowsiness and a *delirium*, or raving.

2. As long as the fever continues violently, two, three, or even four glysters should be given in the 24 hours; and the legs should be bathed twice.

3. The patient is to be taken out of bed, and supported in a chair as long as he can tolerably bear it.

4. The air of his chamber should frequently be renewed; and if it be too hot, which it often is in summer, in order to refresh it, and the patient, the means must be employed which are directed in § 36.

5. He is to be restrained to the ptisans No. 2, or 4; and if that does not sufficiently moderate the fever, he should take every hour, or every two hours, according to the urgency of the case, a spoonful of the mixture No. 10, mixed with a cup of ptisan. After the eruption, the fever being then abated, there is less occasion for medicine; and should it even entirely disappear, the patient may be regulated as directed § 212.

§ 214. When, after a calm, a remission, or intermission of some days, the process of suppuration revives the fever, we ought first, and particularly, to keep the body very open. For this purpose an ounce of *catholicon** should be added to the glysters; or they might be simply made of whey, with honey, oil, and salt. Give the patient three times every morning, at the interval of two hours between each, three glasses of the ptisan No. 32. Purge him after two days, with the potion No. 23; but on that day he must not take the ptisan No. 32.

2. He must, if the distemper be very violent, take a double dose of the mixture No. 10.

3. The patient should be taken out of bed, and kept up in a room well aired day and night, until the fever has abated. Many persons will probably be surprised at this advice; nevertheless, it is that which I have often expe-

* As the *Elec. Catholicon* is little used or made here, the lenitive electuary of our dispensatory may be substituted for it, or that of the *Edinburgh* dispensatory, which was calculated particularly for glysters.

rienced

rienced to be the most efficacious, and without which the others are ineffectual. They will say, how shall the patient sleep at this rate? To which it may be answered, sleep is not necessary, nay, it is hurtful in this state and stage of the disease. Besides, he is really unable to sleep: The continual salivation prevents it, and it is very necessary to keep up the salivation; which is facilitated by often injecting warm water and honey into his throat. It is also of considerable service to throw some up his nostrils, and often thus to cleanse the scabs which form within them. A due regard to these circumstances not only contributes to lessen the patient's uneasiness, but very effectually also to his cure.

4. If the face and neck are greatly swelled, emollient cataplasms are to be applied to the soles of the feet; and if they should have very little effect, sinapisms should be applied. These are a kind of plaister or application composed of yeast, mustard-flour, and some vinegar. They sometimes occasion sharp and almost burning pain; but in proportion to the sharpness and increase of these pains, the head and neck are remarkably relieved.

§ 215. The eyelids are puffed up and swelled when the disease runs high, so as to conceal the eyes, which are closed up fast for several days. Nothing further should be attempted, with respect to this circumstance, but the frequent moistening of them with a little warm milk and water. The precautions which some take to stroke them with saffron, a gold ducat, or rose water, are equally childish and insignificant. What chiefly conduces to prevent the redness or inflammation of the eyes after the disease, and in general all its other bad consequences, is to be content for a considerable time with a very moderate quantity of food, and particularly to abstain from flesh and wine. In the very bad small-pox, and in little children, the eyes are closed up from the beginning of the eruption.

§ 216. One extremely serviceable assistance, and which has not been made use of for a long time past, except as a means to preserve the smoothness and beauty of the face; but yet which has the greatest tendency to preserve life itself, is the opening of the pustules, not only upon the face, but all over the body. In the first place, by opening them, the lodgement or retention of *pus* is prevented, which may be supposed to prevent any erosion, or eating down, from it; whence scars, deep pits, and other deformities

deformities are obviated. Secondly, in giving a vent to the poison, the retreat of it into the blood is cut off, which removes a principal cause of the danger of the small-pox. Thirdly, the skin is relaxed; the tumour of the face and neck diminish in proportion to that relaxation; and thence the return of the blood from the brain is facilitated, which must prove a great advantage. The pustules should be opened every where, successively as they ripen. The precise time of doing it, is when they are entirely white; when they just begin to turn but a very little yellowish; and when the red circle surrounding them is quite pale. They should be opened with very fine sharp-pointed scissars; this does not give the patient the least pain; and when a certain number of them are opened, a sponge dipt in a little warm water is to be repeatedly applied to suck up and remove the *pus*, which would soon be dried up into scabs. * But as the pustules, when emptied thus, soon fill again, a discharge of this fresh matter must be obtained in the same manner some hours after; and this must sometimes be repeated five or even six times successively. Such extraordinary attention in this point may probably be considered as minute, and even trivial, by some; and is very unlikely to become a general practice *: But I do again affirm it to be of much more importance than many may imagine; and that as often as the fever attending suppuration is violent and menacing, a very general, exact, and repeated opening, emptying, and absorbing of the ripened pustules, is a remedy of the utmost importance and efficacy; as it removes two very considerable causes of the danger of this distemper, which are the matter itself, and the great tension and stiffness of the skin.

§ 217. In the treatment of this distemper, I have said nothing with respect to anodynes, or such medicines as occasion sleep, which I am sensible are pretty generally employed in it, but which I scarcely ever direct in this violent degree of the distemper; and the danger of which medicine in it, I have demonstrated in the Letter to *Baron Haller*, which I have already mentioned. For which reason, wherever the patient is not under the care and direction of a physician, they should very carefully ab-

* This practice is not only highly useful towards relieving the disorder, but towards preventing the pox, which so disfigure the faces of some of our most beautiful females.

flain from the use of Venice-treacle, laudanum, *diacodium*, that is, the syrup of white poppies, or even of the wild red poppy; syrup of amber, pills of storax, of *cynoglossum*, or hounds tongue, and, in one word, of every medicine which produces sleep. But still more especially should their use be entirely banished, throughout the duration of the secondary fever, when even natural sleep itself is dangerous. One circumstance, in which their use may sometimes be permitted, is in the case of weakly children, or such as are liable to convulsions, where eruption is effected not without difficulty. But I must again inculcate the greatest circumspection, in the use of such medicines, whose effects are fatal, when the blood vessels are turgid or full; whenever there is inflammation, fever, a great distension of the skin; whenever the patient raves, or complains of heaviness and oppression; and when it is necessary that the belly should be open, the urine plentifully discharged, and the salivation freely promoted.

§ 218. If eruption should suddenly retreat, or strike in, heating, soporific, spirituous and volatile remedies should carefully be avoided; but the patient may drink plentifully of the infusion No. 12, pretty hot, and should be blistered on the fleshy part of the legs. This is a very embarrassing and difficult case, and the different circumstances attending it may require different means and applications, the detail and discussion of which are beyond my plan here. Sometimes a single bleeding has effectually recalled eruption at once.

§ 219. The only certain method of surmounting all the danger of this malady, is to inoculate. But this most salutary method, which ought to be regarded as a particular and gracious dispensation of Providence, can scarcely be attainable by, or serviceable to, the bulk of the people, except in these countries, where hospitals are destined particularly for inoculation. In those where as yet there are none, the only resource that is left for children who cannot be inoculated at home, is to dispose them happily for the distemper, by a simple easy preparation.

§ 220. This preparation consists, upon the whole, in removing all want of, and all obstructions to, the health of the person subject to this distemper, if he have any such, and in bringing him into a mild and healthy, but not into a very robust and vigorous state, as this distemper is often exceedingly violent in the last.

It is evident, that since the defects of health are very different in different bodies, the preparations of them must as often vary; and that a child subject to some habitual disorder, cannot be prepared in the same method with another who has a very opposite one. The detail and distinctions which are necessary on this important head, would be improper here, whether it might be owing to their unavoidable length, or to the impossibility of giving persons, who are not physicians, sufficient knowledge and information, to qualify them for determining on, and preferring the most proper preparation in various cases. Nevertheless, I will point out some such as may be very likely to agree pretty generally, with respect to strong and healthy children*.

The first step then is an abatement of their usual quantity of food. Children commonly eat too much. Their limitation should be in proportion to their size and growth, where we could exactly ascertain them: But, with regard to all, or too much the greater number of them, we may be allowed to make their supper very light, and very small.

Their second advantage will consist in the choice of their food. This circumstance is less within the attainment of, and indeed less necessary for, the common people, who are of course limited to a very few, than to the rich, who have room to make great retrenchments on this account. The diet of country people being of the simplest kind, and almost solely consisting of vegetables and of milk-meats, is the most proper diet towards preparing for this distemper. For this reason, such persons have little more to attend to in this respect, but that such aliments be sound and good in their kind; that their bread be well baked; their pulse dressed without bacon, or rancid strong fat of any sort; that their fruits should be well ripened; that their children should have no cakes or tarts,

* The substance of this section flows from the combination of an excellent understanding with great experience, mature reflection, and real probity; and fundamentally exposes both the absurdity of such an universally decry any preparation of any subject previous to inoculation, (which is said to be the practice of a present very popular inoculator in *Paris*) and the opposite absurdity of giving one and the same preparation to all subjects without distinction; though this was avowed to have been successfully practised in *Pennsylvania*, some years since.

and

and but little cheese. These simple regulations may be sufficient, with regard to this article of their preparation.

Some judgment may be formed of the good consequences of their care on these two points, concerning the quantity and quality of the childrens diet, by the moderate shrinking of their bellies; as they will be rendered more lively and active by this alteration in their living; and yet, notwithstanding a little less ruddiness in their complexion, and some abatement of their common plight of body, their countenances, upon the whole, will seem improved.

The third article I would recommend, is to bathe their legs now and then in warm water, before they go to bed. This promotes perspiration, cools, dilutes the blood, and allays the sharpness of it, as often as it is properly timed.

The fourth precaution is the frequent use of very clear whey. This agreeable remedy, which consists of the juices of herbs filtered through, and concocted, or, as it were sweetened, by the organs of a healthy animal, answers every visible indication, (I am still speaking here of sound and hearty children :) It imparts a flexibility, or suppleness to the vessels; it abates the density, the heavy consistence and thickness of the blood; which being augmented by the action of the poisonous cause of the small-pox, would degenerate into a most dangerous inflammatory viscosity or thickness*. It removes all obstructions in the *viscera*, or bowels of the lower cavity, the belly. It opens the passages which strain off the bile; sheaths or blunts its sharpness, gives it a proper fluidity, prevents its putridity, and sweetens whatever excessive acrimony may reside throughout the mass of humours. It also promotes stools, urine, and perspiration; and, in a word, it communicates the most favourable disposition of the body, not to be too violently impressed and agitated by the operation of an inflammatory poison: And with re-

* There may certainly be an inflammatory acrimony or thinness, as well as thickness of the blood; and many medical readers may think a morbid fusion of the red globules to be a more frequent effect of this contagion, than an increased viscosity of them. But this translation, conforming to the spirit of its original, admits very little theory, and still less controversy, into its plan.

gard to such children as I have mentioned, for those who are either sanguine or bilious, it is, beyond all contradiction, the most effectual preparatory drink, and the most proper to make them amends for the want of inoculation.

I have already observed, that it may also be u d to great advantage, during the course of the distemper: But I must also observe, that however salutary it is in the cases for which I have directed it, there are many others in which it would be hurtful. It would be extremely pernicious to order it to weak, languishing, scirrhus, pale children, subject to vomitings, purgings, acidities, and to all diseases which prove their bowels to be weak, and their humours to be sharp: So that people must be very cautious not to regard it as an universal and infallible remedy, towards preparing for the small-pox. Those, to whom it is advised, may take a few glasses every morning, and even drink it daily for their common drink; they may also sup it with bread for breakfast, for supper, and indeed at any time.

If country people will pursue these directions, which are very easy to observe and to comprehend, whenever the small-pox rages, I am persuaded, it must lessen the mortality attending it. Some will certainly experience the benefit of them; such I mean as are very sensible and discreet, and strongly influenced by the truest love of their children. Others there are, alas! who are too stupid to discern the advantage of them, and too unnatural to take any just care of their families.

CHAP. XIV.

Of the MEASLES.

Of their treatment, and the means to prevent any of their bad consequences.

SECT. 221.

THE measles, to which the human species are as generally liable as to the small-pox, is a distemper considerably related to it; though, generally speaking, it is less fatal; notwithstanding which, it is not a little destructive in some countries. In *Switzerland*, we lose

much fewer immediately in this distemper, than from the consequences of it.

It happens now and then, that the small pox and the measles rage at the same time, and in the same place; though I have more frequently observed, that each of them was epidemical in different years. Sometimes it also happens, that both these distempers are combined at once in the same person; and that one supervenes before the other has finished its course, which makes the case very perilous.

§ 222. In some constitutions, the measles gives notice of its approach many days before its evident invasion, by a small, frequent, and dry cough, without any other sensible complaint; though more frequently by a general uneasiness; by successions of shivering and of heat; by a severe head-ach in grown persons; a heaviness in children; a considerable complaint of the throat; and, by what particularly characterises this distemper, an inflammation and a considerable heat in the eyes, attended with a swelling of the eyelids, with a defluxion of sharp tears, and so acute a sensation, or feeling of the eyes, that they cannot bear the light; by very frequent sneezings, and a dripping from the nose of the same humour with that which trickles from the eyes.

The heat and the fever increases with rapidity; the patient is afflicted with a cough, a stuffing, with anguish, and continual reachings to vomit; with violent pains in the loins; and sometimes with a looseness, under which circumstance he is less afflicted with vomiting. At other times, and in other subjects, sweating chiefly prevails, though in less abundance than in the small-pox. The tongue is foul and white: the thirst is often very high; and the symptoms are generally more violent than in the mild small pox.

At length, on the fourth or fifth day, and sometimes about the end of the third, a sudden eruption appears, and in a very great quantity, especially about the face; which in a few hours is covered with spots, each of which resembles a flea-bite; many of them soon joining, form red streaks, or suffusions larger or smaller, which inflame the skin, and produce a very perceivable swelling of the face; whence the very eyes are sometimes closed. Each small spot or suffusion is raised a little above the surface, especially in the face, where they are manifest both to the

sight

sight and the touch. In the other parts of the body, this elevation or rising is scarcely perceivable by any circumstance, but the roughness of the skin.

The eruption, having first appeared in the face, is afterwards extended to the breast, the back, the arms, the thighs, and legs. It generally spreads very plentifully over the breast and the back; and sometimes red suffusions are found upon the breast, before any eruption has appeared in the face.

The patient is often relieved, as in the small pox, by plentiful discharges of blood from the nose, which carry off the complaints of the head, of the eyes, and of the throat.

Whenever this distemper appears in its mildest character, almost every symptom abates after eruption, as it happens in the small-pox; though, in general, the change for the better is not as thoroughly perceivable as it is in the small-pox. It is certain, the reachings and vomitings cease almost entirely; but the fever, the cough, the head-ach, continue; and I have sometimes observed, that a bilious vomiting, a day or two after the eruption, proved a more considerable relief to the patient, than the eruption had proved. On the third or fourth day of the eruption, the redness diminishes; the spots, or very small pustules, dry up and fall off in very little branny scales; the cuticle, or superficial skin, also shrivels off, and is replaced by one succeeding beneath it. On the ninth day, when the progress of the malady has been speedy, and on the eleventh, when it has been very slow, no trace of the redness is to be found; and the surface immediately resumes its usual appearance.

§ 223. Notwithstanding all which, the patient is not safe, except, during the course of the distemper, or immediately after it, he has had some considerable evacuation; such as the vomiting I have just mentioned; or a bilious looseness, considerable discharges by urine, or very plentiful sweating. For when any of these evacuations supervene, the fever vanishes; the patient resumes his strength, and perfectly recovers. It happens sometimes too, and even without any of these perceivable discharges, that insensible perspiration expels the relics of the poisonous cause of this distemper, and the patient recovers his health. Yet it occurs too often, that this venom not having been entirely expelled, (or its internal effects not having been thoroughly effaced) it is repelled upon the lungs, where it produces a slight inflammation.

In consequence of this the oppression, the cough, the anguish, and fever return, and the patient's situation becomes very dangerous. This outrage is frequently less vehement, but it proves tedious and chronic, leaving a very obstinate cough behind it, with many resemblances of the whooping cough. In 1758, there was an epidemic state of the measles here, extremely numerous, which affected great numbers; almost all who had it, and who were not very carefully and judiciously attended, were seized in consequence of it with that cough, which proved very violent and obstinate.

§ 224. However, notwithstanding this be the frequent progress and consequence of this distemper, when left entirely to itself or erroneously treated, and more particularly when treated with a hot regimen; yet when proper care was taken to moderate the fever at the beginning, to dilute, and to keep up the evacuations, such unhappy consequences have been very rare.

§ 225. The proper method of conducting this malady, is much the same with that of the small-pox.

1. If the fever be high, the pulse hard, the head and oppression heavy, and all the symptoms violent, the patient must be bled once or twice.

2. His legs must be bathed, and he must take some glysters: The vehemence of the symptoms must regulate the number of each.

3. The ptisans No. 3 or 4, must be taken, or a tea of elder or lime tree flowers, to which a fifth part milk may be added.

4. The vapour, the steam of warm water, should also be employed, as very conducive to assuage the cough, the soreness of the throat, and the oppression the patient labours under.

5. As soon as the efflorescence, the redness, becomes pale, the patient is to be purged with the draught No. 23.

6. He is still to be kept strictly to his regimen, for two days after this purge; after which he is to be put upon the diet of those who are in a state of recovery.

7. If, during the eruption, such symptoms supervene as occur (at the same term) in the small-pox, they are to be treated in the manner already directed there.

§ 226. Whenever this method has not been observed, and the accidents described § 223 supervene, the distemper must be treated like an inflammation in its first state; and all must be done as directed § 225. If the disease

is not vehement, bleeding may be omitted. If it is of some standing in gross children, loaded with humours, inactive, and pale, we must add to the medicines already prescribed the potion No. 8, and blisters to the legs.

§ 227. It often happens from the distance of proper advice, that the relics, the dregs, as it were, of the distemper, have been too little regarded, especially the cough; in which circumstance, it forms a real suppuration in the lungs, attended with a slow fever. I have seen many children in country villages destroyed by this neglect. Their case is then of the same nature with that described § 68 and 82, and terminates in the same manner in a looseness, (attended with very little pain) and sometimes a very foetid one, which carries off the patient. In such cases, we must recur to the remedies prescribed § 74, article 3, 4, 5; to the powder No. 14; and to milk and exercise. But it is so very difficult to make children take the powder, that it may be sometimes necessary to trust to the milk without, which I have often seen in such situations accomplish a very difficult cure. I must advise the reader at the same time, that it has not so compleat an effect, as when it is taken solely unjoined by any other aliment; and that it is of the last importance not to join it with any, which has the least acidity or sharpness. Persons in easy circumstances, may successfully take, at the same time, *Pfeffer*, *Steltzer*, *Peterstal*, or some other light waters*, which are but moderately mixed with mineral ingredients. These are also successfully employed in all the cases, in which the cure I have mentioned is necessary.

§ 228. Sometimes there remains, after the course of the measles, a strong dry cough, with great heat in the breast, and throughout the whole body, with thirst; an excessive dryness of the tongue, and of the whole surface of the body. I have cured persons thus indisposed after this distemper, by making them breathe in the vapour of warm water; by the repeated use of warm baths; and by allowing them to take nothing for several days but water and milk.

Before I take leave of this subject, I assure the reader again, that the contagious cause of the measles is of an extremely sharp and acrid nature. It appears to have some resemblance to the bilious humour, which produces the

* Bristol water will be no bad substitute for any of these, in such cases.

erisipelas, or St. Anthony's fire; and thence it demands our particular attention and vigilance; without which very troublesome and dangerous consequences may be apprehended. I have seen, not very long since, a young girl, who was in a very languid state after the measles, which she had undergone three years before: It was at length attended with an ulceration in her neck, which was cured, and her health finally restored by *sarsaparilla*, with milk and water.

§ 229. The measles have been communicated by inoculation* in some countries, where it is of a very malignant disposition; and that method might also be very advantageous in this. But what we have already observed, with respect to the inoculation of the small-pox, viz, That it cannot be extended to the general benefit of the people, without the foundation of hospitals for that very purpose, is equally applicable to the inoculation of the measles.

CHAP. XV.

Of the ARDENT or BURNING FEVER.

SECT. 230.

THE much greater number of the distempers I have hitherto considered, result from an inflammation of the blood, combined with the particular inflammation of some part, or occasioned by some contagion or poison, which must be evacuated. But when the blood is solely and strongly inflamed, without an attack upon any particular part, this fever, which we term Hot or Burning, is the consequence.

* See Dr. HOME's *Medical Facts and Experiments*, published in 1759, which admits, that but nine out of fifteen of the subjects of this practice took. Cotton dipped in the blood of a patient in the measles was inserted into the arms of twelve; and three received the cotton into their nostrils, after the Chinese manner of infusing the small-pox; but of these last not one took, and one of those who had taken, had the measles again two months after. We think the sharp hot lymph distilling from the inflamed eyes of persons in this distemper, a likelier vehicle to communicate it than the blood, especially the dry blood.

§ 231. The signs which make it evident, are, a hardness and fulness of the pulse in a higher degree than happens in any other malady, an excessive heat, great thirst, with an extraordinary dryness of the eyes, nostrils, lips, of the tongue, and of the throat; a violent head-ach, and sometimes a raving at the height of the paroxysm, or increase of the fever, which rises considerably every evening. The respiration is also somewhat oppressed, but especially at the return of this paroxysm, with a cough now and then; though without any pain in the breast, and without any expectoration, or coughing up. The body is costive; the urine very high coloured, hot, and in a small quantity. The sick are also liable to start sometimes, but especially when they seem to sleep; for they have little sound refreshing sleep, but rather a kind of drowsiness, that makes them very little attentive to, or sensible of, whatever happens about them, or even of their own condition. They have sometimes a little sweat or moisture, though commonly a very dry skin; they are very weak, and have either little or no smell or taste.

§ 232. This disease, like all other inflammatory ones, is produced by the causes which thicken the blood, and increase its motion; such as excessive labour, violent heat, want of sleep, the abuse of wine or other strong liquors; the long continuance of a dry constitution of the air, excess of every kind, and heating inflaming food.

§ 233. The patient, under these circumstances ought, 1, immediately to be put upon a regimen, to have the food allowed him given only every eight hours, and, in some cases, only twice a day: And indeed, when the attack is extremely violent, nourishment may be wholly omitted.

2. Bleeding should be performed and repeated, until the hardness of the pulse is sensibly abated. The first discharge should be considerable, the second should be made four hours after. If the pulse is softened by the first, the second may be suspended, and not repeated before it becomes sufficiently hard again, to make us apprehensive of danger: But should it continue strong and hard, the bleeding may be repeated on the same day to a third time, which often happens to be all the repetitions that are necessary.

3. The glyster No. 5, should be given twice, or even thrice, daily.

4. His legs are to be bathed twice a day in warm water : His hands may be bathed in the same water, linen or flannel cloths may be dipt in warm water and applied over the breast, and upon the belly ; and he should regularly drink the almond milk No. 4, and the ptisan No. 7. The poorest patients may content themselves with the last, but should drink very plentifully of it ; and after the bleeding properly repeated, fresh air and the plentiful continuance of small diluting liquors generally establish the health of the patient.

5. If notwithstanding the repeated bleeding, the fever still rages highly, it may be lessened by giving a spoonful of the potion No. 10, every hour, until it abates ; and afterwards every three hours, until it becomes very moderate.

§ 234. Hæmorrhages, or bleedings, from the nose frequently occur in this fever, greatly to the relief and security of the patient.

The first appearances of amendment are a softening of the pulse, (which however does not wholly lose all its hardness, before the disease entirely terminates) a sensible abatement of the head-ach ; a greater quantity of urine, and that less high coloured ; and an evident approaching moisture of the tongue. These favourable signs keep increasing in their degree, and there frequently ensue between the ninth and fourteenth day, and often after a flurry of some hours continuance, very large evacuations by stool ; a great quantity of urine, which lets fall a pale reddish sediment, the urine above it being very clear, and of a natural colour, and these accompanied with sweats in a less or greater quantity. At the same time the nostrils and the mouth grow moist : The brown and dry crust which covered the tongue, and which was hitherto inseparable from it, peels off itself ; the thirst is diminished ; the clearness of the faculties rises ; the drowsiness goes off, it is succeeded by comfortable sleep, and the natural strength is restored. When things are evidently in this way, the patient should take the potion No. 23, and be put upon the regimen of those who are in a state of recovery. It should be repeated at the end of eight or ten days. Some patients have perfectly recovered from this fever, without the least sediment in their urine.

§ 235. The augmenting danger of this fever may be discerned, from the continued hardness of the pulse, though

though with an abatement of its strength; if the brain becomes more confused; the breathing more difficult; if the eyes, nose, lips and tongue become still more dry, and the voice more altered. If to these symptoms there be also added a swelling of the belly, a diminution of the quantity of urine, a constant raving, great anxiety, and a certain wildness of the eyes, the case is in a manner desperate, and the patient cannot survive many hours. The hands and fingers at this period are incessantly in motion, as if feeling for something upon the bed-cloaths, which is commonly termed, their hunting for flies.

C H A P. XVI.

Of PUTRID FEVERS.

S E C T. 236.

HAVING treated of such feverish distempers as arise from an inflammation of the blood, I shall here treat of those which are produced by corrupt humours, which stagnate in the stomach, the guts, or other bowels of the lower cavity, the belly, or which have already passed from them into the blood. These are called Putrid Fevers, or sometimes Bilious Fevers, when a certain degeneracy or corruption of the bile seems chiefly to prevail in the disease.

§ 237. This distemper frequently gives notice of its approach, several days before its manifest attack, by a great dejection, a heaviness of the head, pains of the loins and knees, a foulness of the mouth in the morning, little appetite, broken slumber, and sometimes by an excessive head-ach for many days, without any other symptom. After this, or these disorders, a shivering comes on, followed by a sharp and dry heat: The pulse, which was small and quick during the shivering, is raised during the heat, and is often very strong, though it is not attended with the same hardness, as in the preceding fever; except the putrid fever be combined with an inflammatory one, which it sometimes is. During this time, that is, the duration of the heat, the head-ach is commonly extremely violent; the patient is almost constantly affected with loathings, and sometimes even with vomiting, with thirst, disagreeable risings, a bitterness in the mouth, and very

very little urine. This heat continues for many hours, frequently the whole night; it abates a little in the morning, and the pulse, though always feverish, is then something less so, while the patient suffers less, though still greatly dejected.

The tongue is white and furred, the teeth are foul, and the breath smells very disagreeably. The colour, quantity, and consistence of the urine, are very various and changable. Some patients are costive, others frequently have small stools, without the least relief accruing from them. The skin is sometimes dry, and at other times there is some sensible perspiration, but without any benefit attending it. The fever augments every day, and frequently at unexpected irregular periods. Besides that great paroxysm or increase, which is perceivable in all the subjects of this fever, some have also other less intervening ones.

§ 238. When the disease is left to itself, or injudiciously treated; or when it proves more powerful than the remedies used against it, which is most frequently the case, the aggravations of it become more frequent, longer, and irregular. There is scarcely an interval of ease. The patient's belly is swelled out like a foot-ball; a delirium or raving comes on; he proves insensible of his own evacuations, which come away involuntary; he rejects assistance, and keeps muttering continually, with a quick, small, irregular pulse. Sometimes little spots of a brown, or of a livid colour appear on the surface, but particularly about the neck, back, and breast. All the discharges from his body have a most fœtid smell: Convulsive motions also supervene, especially in the face; he lies down only on his back, sinks down insensibly towards the feet of the bed, and picks about, as if catching flies; his pulse becomes so quick and so small, that it cannot be felt without difficulty, and cannot be counted. His anguish seems inexpressible: His sweats stream down from agony: His breast swells out, as if distended by fulness, and he dies miserably.

§ 239. When this distemper is less violent, or more judiciously treated, and the medicines succeed well, it continues for some days in the state described § 237, without growing worse, though without abating. None of these symptoms however appear, described § 238; but, on the contrary, all the symptoms become milder, the paroxysms, or aggravations, are shorter and less violent, the head-ach
more

more supportable; the discharges by stool are less frequent, but more at once, and attended with relief to the patient. The quantity of urine is very considerable, though it varies at different times in colour and consistence, as before. The patient soon begins to get a little sleep, and grows more composed and easy. The tongue disengages itself from its filth and furriness, and health gradually, yet daily, advances.

§ 240. This fever seems to have no critical time, either for its termination in recovery, or in death. When it is very violent, or very badly conducted, it proves sometimes fatal on the ninth day. Persons often die of it from the 18th to the 20th; sometimes only about the 40th; after having been alternately better and worse.

When it happens but in a light degree, it is sometimes cured within a few days, after the earliest evacuations. When it is of a different character, some patients are not out of danger before the end of six weeks, and even still later. Nevertheless it is certain, that these fevers extended to this length of duration, often depend in a great measure on the manner of treating them; and that in general their course must be determined some time from the 14th to the 30th day.

§ 241. The treatment of this species of fevers is comprized in the following method and medicines.

1. The patient must be put into regimen; and notwithstanding he is far from being costive, and has sometimes even a small purging, he should receive one glyster daily. His common drink should be lemonade (which is made of the juice of lemons, sugar and water) or the ptilian No. 3. Instead of juice of lemons, vinegar may be occasionally substituted, which, with sugar and water, makes an agreeable and very wholesome drink in these fevers.

2. If there be an inflammation also, which may be discovered by the strength and the hardness of the pulse, and by the temperament and complexion of the patient; if he is naturally robust, and has heated himself by any of the causes described § 232, he should be bled once, and even a second time, if necessary, some hours after. I must observe however, that very frequently there is no such inflammation, and that in such a case, bleeding would be hurtful.

3. When the patient has drank very plentifully for two days of these liquids, if his mouth still continues in a very
foul

foul state, and he has violent reachings to vomit, he must take the powder No. 34, dissolved in half a * pot of warm water, a † glass of it being to be drank every half quarter of an hour. But as this medicine vomits, it must not be taken, except we are certain the patient is not under any circumstance, which forbids the use of a vomit; all which circumstances shall be particularly mentioned in the chapter, respecting the use of such medicines, as are taken by way of precaution, or prevention. If the first glasses excite a plentiful vomiting, we must forbear giving another, and be content with obliging the patient to drink a considerable quantity of warm water. But if the former glasses do not occasion vomiting, they must be repeated, as already directed, until they do. Those who are afraid of taking this medicine, which is usually called Emetic, may take that of No. 35, also drinking warm water plentifully during its operation; but the former is preferable, as more prevalent, in dangerous cases. We must caution our readers at the same time, that wherever there is an inflammation of any part, neither of these medicines must be given, which might prove a real poison in such a circumstance; and even if the fever is extremely violent, though there should be no particular inflammation, they should not be given.

The time of giving them is soon after the end of the paroxysm, when the fever is at the lowest. The medicine No. 34, generally purges, after it ceases to make the patient vomit: But No. 35 is seldom attended with the same effect.

When the operation of the vomit is entirely over, the sick should return to the use of the ptisan, and great care should be taken to prohibit them from the use of flesh broth, under the pretext of working off a purging with it. The same method is to be continued on the following days as on the first; but as it is of importance to keep the body open, he should take every morning some of the ptisan No. 32. Such as this would be too expensive for, may substitute in the room of it, a fourth part of the powder No. 34, in five or six glasses of water, of which they are to take a cup every two hours, beginning early on the morning. Nevertheless, if the fever be very high, No. 32 should be preferred to it.

* A pot is about half a pint Scots measure.

† About three ounces.

4. After the operation of the vomit, if the fever still continues, if the stools are remarkably foetid, and if the belly is tense, and distended as it were, and the quantity of urine is small, a spoonful of the potion No. 10 should be given every two hours, which checks the putridity, and abates the fever. Should the distemper become violent and pressing, it ought to be taken every hour.

5. Whenever (notwithstanding the giving all these medicines as directed) the fever continues obstinate; the brain is manifestly disordered; there is a violent head-ach, or very great restlessness; two blistering plaisters, No. 36, must be applied to the inside and fleshy part of the legs, and their suppuration and discharge should be continued as long as possible.

6. If the fever is extremely violent indeed, there is an absolute necessity to prohibit the patient from receiving the least nourishment.

7. When it is thought improper or unsafe to give the vomit, the patient should take in the morning, for two successive days, three doses of the powder No. 24, at the interval of one hour between each: This medicine produces some bilious stools, which greatly abate the fever, and considerably lessen the violence of all the other symptoms of the disease. This may be done with success, when the excessive height of the fever prevents us from giving the vomit: And we should limit ourselves to this medicine, as often as we are uncertain whether the circumstance of the disease and the patient will admit of the vomiting; which may also be dispensed with, in many cases.

8. When the distemper has considerably and evidently declined, the paroxysms are more slight, and the patient continues without any fever for several hours; the daily use of the purging opening drinks should be discontinued. The common ptisans however should be still made use of, and it will be proper to give every other day two doses of the powder No. 24, which sufficiently obviates every ill consequence from this disease.

9. If the fever has been clearly off for a long part of the day, if the tongue appears in a good healthy state, if the patient has been well purged, and yet one moderate paroxysm of the fever returns every day, he should take four doses of the powder No. 14, between the end of one return and the beginning of the next, and continue this repetition some days. People who cannot procure this medicine, may substitute, instead of it, the bitter decocti-

on

on, No. 37, four glasses of which may be taken at equal intervals, between the two paroxysms or returns of the fever.

10. As the organs of digestion have been considerably weakened through the course of this fever, there is a necessity for the patient's conducting himself very prudently and regularly long after it, with regard both to the quantity and quality of his food. He should also use due exercise as soon as his strength will permit, without which he may be liable to fall into some chronical and languishing disorder, productive of considerable languor and weakness *.

C H A P. XVII.

Of MALIGNANT FEVERS.

The danger of applying living animals in them.

S E C T. 242.

THOSE fevers are called Malignant, in which the danger is more than the symptoms would make us apprehensive of: They have frequently a fatal event without appearing so very perilous; on which account it has been well said of this fever, that it is a dog which bites without barking.

* As our jail, hospital, and often camp fevers, may often be ranged in this class, as of the most putrid kind, and not seldom occasioned by bad food, bad air, unclean, unwholesome lodging, &c. a judicious use may certainly be made of a small quantity of genuine, and not ungenerous wine, in such of them as are not blended with an inflammatory cause, or inflammable constitution, or which do not greatly result from a bilious cause; though in these last, where there is manifest lowness and dejection, perhaps a little Rhenish might be properly interposed between the lemonade and other drinks directed § 241. Doubtless Dr. Tissot was perfectly apprised of this salutary use of it in some low fevers; but the necessity of its being regulated by the presence of a physician has probably disposed him rather to omit mentioning it, than to leave the allowance of it to the discretion of a simple country patient, or his ignorant assistants.

§ 243. The distinguishing *criterion* or mark of malignant fevers, is a total loss of the patient's strength, immediately on their first attack. They arise from a corruption of the humours, which is noxious to the very source and principle of strength, the impairing or destruction of which is the cause of the feebleness of the symptoms; by reason none of the organs are strong enough to exert an opposition, sufficiently vigorous to subdue the cause of the distemper.

If, for instance or illustration, we were to suppose, that when two armies were on the point of engaging, one of them should be nearly deprived of all their weapons, the contest would not appear very violent, nor attended with great noise or tumult, though with a horrible massacre. The spectator, who, from being ignorant of one of the armies being disarmed, would not be able to calculate the carnage of the battle, but in proportion to its noise and tumult, must be extremely deceived in his conception of it. The number of the slain would be astonishing, which might have been much less, (though the noise and clangor of it had been greater) if each army had been equally provided for the combat.

§ 244. The cause of this malady are a long use of animal food or flesh alone, without pulse, fruits, or acids; the continued use of other bad provisions such as bread made of damaged corn or grain, or very stale meat. Eight persons who dined together on corrupt fish, were all seized with a malignant fever, which killed five of them, notwithstanding the endeavours of the most able physicians. These fevers are also frequently the consequence of a great dearth or famine; of too hot and moist an air, or an air which highly partakes of these two qualities; so that they happen to spread most in hot years, in places abounding with marshes and standing waters. They are also the effect of a very close and stagnant air, especially if many persons are crowded together in it, this being a cause that particularly tends to corrupt the air. Tedious grief and vexation also contribute to generate these fevers.

§ 245. The symptoms of malignant fevers are, as I have already observed, a total and sudden loss of strength, without any evident preceding cause, sufficient to produce such a privation of strength: At the same time, there is also an utter dejection of the mind, which becomes almost insensible and inattentive to every thing, and even to the malady itself; a sudden alteration in the countenance, especially

pecially in the eyes ; some small shiverings, which are varied throughout the space of twenty four hours, with little paroxysms or vicissitudes of heat ; sometimes there is a great head-ach, and a pain in the loins ; at other times there is no perceivable pain in any part ; a kind of sinkings or faintings, immediately from the invasion of the malady, which is always very unpromising, not the least refreshing sleep ; frequently a kind of half-sleep or drowsiness ; a light and silent or inward raving, which discovers itself in the unusual and astonishing look of the patient, who seems profoundly employed in meditating on something, but really thinks of nothing, or not at all : Some patients have however violent ravings ; most have a sensation of weight or oppression, and at other times of a binding or tightness about or around the pit of the stomach.

The sick person seems to labour under great anguish : He has sometimes slight convulsive motions and twitchings in his face and hands, as well as in his arms and legs. His senses seem torpid, or as it were benumbed. I have seen many who had lost, to all appearance, the whole five, and yet some of them have recovered. It is not uncommon to meet with some, who neither see, understand, nor speak. Their voices change, become weak, and are sometimes quite lost. Some of them have a fixed pain in some part of the belly : This arises from a stuffing or obstruction, and often ends in a gangrene, whence this symptom is highly dangerous and perplexing.

The tongue is sometimes very little altered from its appearance in health ; at other times covered over with a yellowish brown humour ; but it is more rarely dry in this fever than in the others ; and yet it sometimes does resemble a tongue that has been long smoked.

The belly is sometimes very soft, and at other times tense and hard. The pulse is weak, sometimes pretty regular, but always more quick than in a natural state, (and at sometimes even very quick) and such I have always found it when the belly has been distended.

The skin is often neither hot, dry, nor moist : It is frequently overspread with petechial or eruptive spots, (which are little spots of a reddish livid colour) especially on the neck, about the shoulders, and upon the back. At other times, the spots are larger, and brown, like the colour of pustules from the strokes of a stick.

The urine of the sick is almost constantly crude, that is, of a lighter colour than ordinary. I have seen some, which

which could not be distinguished, merely by the eye, from milk. A black and stinking purging sometimes attends this fever, which is mortal, except the sick be evidently relieved by the discharge.

Some of the patients are infested with livid ulcers on the inside of the mouth, and on the palate; at other times, abscesses are formed in the glands of the groin, of the arm-pit, in those between the ears and the jaw; or a gangrene may appear in some part, as on the feet, the hands, or the back. The strength proves entirely spent, the brain is wholly confused; the miserable patient stretched out on his back, frequently expires under convulsions, an enormous sweat, and an oppressed breast and respiration. Hæmorrhages also happen sometimes, and are mortal, being almost unexceptionably such in this fever. There is also in this, as in all other fevers, an aggravation of the fever in the evening.

§ 246. The duration and *crisis* of these malignant, as well as those of putrid fevers, are very irregular. Sometimes the sick die on the seventh or eighth day, more commonly between the twelfth and the fifteenth, and not unfrequently at the end of five or six weeks. These different durations result from the different degree and strength of the malady. Some of these fevers, at their first invasion, are very slow, and, during a few of the first days, the patient, tho' very weak, and with a very different look and manner, scarcely thinks himself sick.

The term or period of the cure, or the recovery, is as uncertain as that of death in this distemper. Some are out of danger at the end of fifteen days, and even sooner; others not before the expiration of several weeks.

The signs which portend a recovery are, a little more strength in the pulse, a more concocted urine, less dejection and discouragement, a less confused brain, an equal kindly heat, a pretty warm or hot sweat in a moderate quantity, without inquietude or anguish, the revival of the different senses that were extinguished, or greatly suspended in the progress of the disease; though the deafness is not a very threatening symptom, if the others amend while it endures.

This malady commonly leaves the patient in a very weak condition; and a long interval will ensue between the end of it and their recovering their full strength.

§ 247. It is, in the first place, of greater importance in this malady than in any other, both for the benefit of the patients, and those who attend them, that the air should be renewed and purified. Vinegar should often be evaporated from a hot tile or iron in the chamber, and one window kept almost constantly open.

2. The diet should be light, and the juice of sorrel may be mixed with their water; the juice of lemons may be added to soups prepared from different grains and pulse; the patient may eat sharp acid fruits, such as tart juicy cherries*, gooseberries, small black cherries; and those who can afford them may be allowed lemons, oranges, and pomegranates.

3. The patient's linen should be changed every two days.

4. Bleeding is very rarely necessary, or even proper, in this fever; the exceptions to which are very few, and cannot be thoroughly ascertained, as fit and proper exceptions to the omission of bleeding, without a physician or some other very skilful person's seeing the patient.

5. There is often very little occasion for glysters, which are sometimes even dangerous in this fever.

6. The patient's common drink should be barley-water made acid with the spirit No. 10, at the rate of one quarter of an ounce to at least full three pints of the water, or acidulated agreeably to his taste; he may also drink lemonade.

7. It is necessary to open and evacuate the bowels, where a great quantity of corrupt humours is generally lodged. The powder No. 35 may be given for this purpose, after the operation of which the patient generally finds himself better, at least for some hours. It is of importance not to omit this at the beginning of the disease; though if it has been omitted at first, it were best to give it even later, provided no particular inflammation has su-

* The French word is *griottes*, which *Boyer* Englishes, *the agriot, the red or sour cherry*; and *Chambaud*, *the sweeter large black cherry or Mazzard*.—But as *Dr. Tissot* was recommending the use of acids, it is more probably the first of these: So that our *morellas*, which make a pleasant preserve, may be a good substitute to them, supposing them not to be the same. Our *berbery jam*, and *jelly of red currants*, may be also employed to answer the same indication.

pervened,

pervened, and the patient has still some strength. I have given it, and with remarkable success, on the twentieth day.

8. Having by this medicine expelled a considerable portion of the bad humours, which contribute to feed and keep up the fever, the patient should take every other day, during the continuance of the malady, and sometimes even every day, one dose of the cream of tartar and rhubarb No. 38. This remedy evacuates the corrupt humours, prevents the corruption of the others, expels the worms that are very common in these fevers, which the patient sometimes discharges upwards and downwards, and which frequently conduce to many of the odd and extraordinary symptoms that are observed in malignant fevers. In short, it strengthens the bowels, and without checking the necessary evacuations, it moderates the looseness, when it is hurtful.

9. If the skin be dry, with a looseness, and that by checking it we design to increase perspiration, instead of the rhubarb, the cream of tartar may be blended with the ipecacuana No. 39; which being given in small and frequent doses, restrains the purging and forwards perspiration. This medicine, as the former, is to be taken in the morning; two hours after, the sick must begin with the potion No. 40, and repeat it regularly every three hours, until it be interrupted by giving one of the medicines No. 38 or 39; after which the potion is to be repeated again, as already directed, till the patient grows considerably better.

10. If the strength of the sick be very considerably depressed, and he is in great dejection and anguish, he should take with every draught of the potion, the bolus or morsel No. 41. If the *diarrhœa*, the purging, is violent, there should be added once or twice a day to the bolus the weight of twenty grains, or the size of a very small bean, of *diascordium*, or, if that is not readily to be procured, as much Venice-treacle.

11. Whenever, notwithstanding all this assistance, the patient continues in a state of weakness and insensibility, two large blisters should be applied to the fleshy insides of the legs, or a large one to the nape of the neck: And sometimes, if there be a great drowsiness, with a manifest perplexity of the brain, they may be applied with great

success over the whole head. Their suppuration and discharge is to be promoted abundantly, and if they dry up within a few days others are to be applied, and their evacuation is to be kept up for a considerable time.

12. As soon as the malady is sufficiently abated, for the patient to remain some hours with very little or no fever, we must avail ourselves of this interval, to give him six or five doses at least of the medicine No. 14, and repeat the same next day, which may prevent the return of the fever; after which it may be sufficient to give daily only two doses for a few days*.

13. When the sick continue entirely clear of a fever, or any return, they are to be put into the regimen of persons in a state of recovery; but if his strength returns very slowly, or not at all, in order to the speedier establishment and confirmation of it, he may take three doses a day of the *Theriaca Pauperum*, or Poor Man's Treacle, No. 42, the first of them fasting, and the other twelve hours after. It were to be wished, indeed, this medicine was introduced into all the apothecaries shops, as an excellent stomachic, in which respect it is much preferable to Venice-treacle, which is an absurd, dear, and often a dangerous composition. It is true, it does not dispose the patients to sleep; but when we would procure them sleep, there are better medicines than the treacle to answer that purpose. Such as may not think the expence of the medicine No. 14. too much, may take three doses of it daily for some weeks, instead of the medicine No. 42, already directed.

§. 248. It is necessary to eradicate a prejudice that prevails among country people, with regard to the treatment of these fevers; not only because it is false and ridiculous, but even dangerous too. They imagine, that the application of animals can draw out the poison of the disease; in consequence of which they apply poultry or pigeons, cats or sucking pigs to the feet, or upon the head of the patient, having first split the living animals open. Some hours after they remove their strange applications, cor-

* Observation and experience have demonstrated the advantage of the bark, to obviate a gangrene, and prevent the putrefaction of animal substances. We therefore conclude, it may be usefully employed in malignant fevers, as soon as the previous and necessary evacuations shall have taken place.
C. L.

rupted and stinking very offensively : and then ascribe such corruption and horrid stink to the poison they suppose their application to be charged with ; and which they imagine to be the cause of this fever. But in this supposed extraction of poison, they are grossly mistaken, since the flesh does not stink in consequence of any such extraction, but from its being corrupted through moisture and heat : and they contract no other smell but what they would have got, if they had been put in any other place, as well as on the patient's body, that was equally hot and moist. Very far from extracting the poison, they augment the corruption of the disease ; and it would be sufficient to communicate it to a sound person, if he was to suffer any of these animal bodies, thus absurdly and uselessly butchered, to be applied to various parts of his body in bed, and to lie still a long time with their putrified carcasses fastened about him, and corrupting whatever air he breathed there.

With the same intention they fasten a living sheep to the bed's foot for several hours ; which, though not equally dangerous, is in some measure hurtful, since the more animals there are in a chamber, the air of it is proportionably corrupted, or altered at least from its natural simplicity, by their respiration and exhalations : But, admitting this to be less pernicious, it is equally absurd. It is certain indeed, the animals who are kept very near the sick person breathe in the poisonous, or noxious vapours, which exhale from his body, and may be incommoded with them, as well as his attendants : But it is ridiculous to suppose their being kept near the sick, causes such poison to come out of their bodies. On the reverse, in contributing still further to the corruption of the air, they increase the disease. They draw a false consequence, and no wonder, from a false principle ; saying if the sheep dies, the sick will recover. Now, most frequently the sheep does not die ; notwithstanding which the sick sometimes recover, and sometimes they both die.

§ 249. The cause of malignant fevers, is not uncommonly combined with other diseases, whose danger it extremely increases. It is blended, for instance, with the poison of the small-pox, or of the measles. This may be known by the union of those symptoms, which carry the marks of malignity, with the symptoms of the other diseases.

cases. Such combined cases are extremely dangerous. they demand the utmost attention of the physician; nor is it possible to prescribe their exact treatment here, since it consists in general of a mixture of the treatment of each disease; though the malignity commonly demands the greatest attention.

END OF VOL I.